

521

50 55 60  
Asn Asp Val Leu His Ala Glu Asn Val Lys Ala Gly Arg Asp Lys Tyr  
65 70 75 80  
Lys Thr Leu Arg Gln Ile Arg Gln Gly Asn Thr Lys Gln Arg Ile Asp  
85 90 95  
Glu Phe Glu Ala Met  
100

<210> 566  
<211> 25  
<212> PRT  
<213> Homo sapiens

<400> 566  
Thr Ala Asp Leu Val Ile Arg Pro Pro Arg Pro Leu Lys Val Leu Gly  
1 5 10 15  
Phe Cys Val Phe Cys Ala Pro Pro Leu  
20 25

<210> 567  
<211> 274  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (182)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (224)  
<223> Xaa equals any of the naturally occurring L-amino acids

522

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (228)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (231)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 567

Ala	Ser	Pro	Glu	Val	Glu	Ala	Gly	Ala	Ala	Arg	Gln	Pro	Leu	Leu	Gly
1				5				10					15		
Val	Ala	Gly	Gly	Gln	Thr	Leu	Gly	Ala	Thr	Pro	Gly	Pro	Val	Met	Asn
			20				25					30			
Gly	Pro	Ala	Asp	Gly	Glu	Val	Asp	Tyr	Lys	Lys	Lys	Tyr	Arg	Asn	Leu
	35					40						45			
Lys	Arg	Lys	Leu	Lys	Phe	Leu	Ile	Tyr	Glu	His	Glu	Cys	Phe	Gln	Glu
	50				55						60				
Glu	Leu	Arg	Lys	Ala	Gln	Arg	Lys	Leu	Leu	Lys	Val	Ser	Arg	Asp	Lys
65					70					75					80
Ser	Phe	Leu	Leu	Asp	Arg	Leu	Leu	Gln	Tyr	Glu	Asn	Val	Asp	Glu	Asp
				85				90						95	
Ser	Ser	Asp	Ser	Asp	Ala	Thr	Ala	Ser	Ser	Asp	Asn	Ser	Glu	Thr	Glu
			100					105					110		
Gly	Thr	Pro	Lys	Leu	Ser	Asp	Thr	Pro	Ala	Pro	Lys	Arg	Lys	Arg	Ser
		115					120					125			
Pro	Pro	Leu	Gly	Gly	Ala	Pro	Ser	Pro	Ser	Ser	Leu	Ser	Leu	Pro	Pro
		130				135					140				
Ser	Thr	Gly	Phe	Pro	Leu	Gln	Ala	Ser	Gly	Val	Pro	Ser	Pro	Tyr	Leu
145					150					155					160
Ser	Ser	Leu	Ala	Ser	Ser	Arg	Tyr	Pro	Pro	Phe	Pro	Ser	Asp	Tyr	Leu
				165					170					175	
Ala	Leu	Gln	Leu	Pro	Xaa	Pro	Ser	Pro	Leu	Arg	Pro	Lys	Arg	Glu	Lys
			180					185					190		
Arg	Pro	Arg	Leu	Pro	Arg	Lys	Leu	Lys	Met	Ala	Val	Gly	Pro	Pro	Asp
		195					200					205			

523

Cys Pro Val Gly Gly Pro Leu Xaa Phe Pro Gly Arg Gly Xaa Gly Xaa  
 210 215 220  
 Gly Val Gly Xaa Thr Leu Xaa Pro Leu Pro Pro Pro Lys Met Pro Pro  
 225 230 235 240  
 Pro Thr Ile Leu Ser Thr Val Pro Arg Gln Met Phe Ser Asp Ala Gly  
 245 250 255  
 Ser Gly Asp Asp Ala Leu Asp Gly Asp Asp Asp Leu Val Ile Asp Ile  
 260 265 270  
 Pro Glu

&lt;210&gt; 568

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 568

Ala Arg Gly Asp His Val Arg Ser Arg Glu Thr Gly Arg Gln Ser Ala  
 1 5 10 15  
 Ser Lys Gly Gln Ile Pro Leu Leu Pro Arg Gly Pro Ala Val Pro Gly  
 20 25 30  
 Gly Pro Ser Ala Gln Thr Ala Ala Gln Arg Glu Leu Arg Gly Xaa Val  
 35 40 45  
 Gly Ala Gly Ala Pro Val Tyr Leu Ala Ala Val Leu Glu Tyr Leu Thr  
 50 55 60  
 Ala Glu Ile Leu Glu Leu Ala Gly Asn Ala Ala Arg Asp Asn Lys Lys  
 65 70 75 80  
 Thr Arg Ile Ile Pro Arg His Leu Gln Leu Ala Ile Arg Asn Asp Glu  
 85 90 95  
 Glu Leu Asn Lys Leu Leu Gly Lys Val Thr Ile Ala Gln Gly Gly Val  
 100 105 110  
 Leu Pro Asn Ile Gln Ala Val Leu Leu Pro Lys Lys Thr Glu Ser Gln  
 115 120 125

524

Lys Thr Lys Ser Lys  
130

<210> 569  
<211> 153  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (136)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (137)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (152)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 569  
Met Cys Arg Gly Tyr Ala Trp Asn Pro Gly Ile Thr Leu Gln Asn Arg  
1 5 10 15  
Lys Thr Lys Glu Gly Pro Arg Ala Pro Pro Ser Arg Met Pro Glu Pro  
20 25 30  
Ala Gly Gly Leu Arg Gly Cys Glu Ala Val Gly Thr Leu Leu Met Lys  
35 40 45  
Glu Thr Val Phe Ala Leu His Pro Ser Leu Pro Leu Gly Ala Gly Ser  
50 55 60  
Ser Pro Ser Ala Thr Cys Ser Glu Gly Leu His Leu Arg Gly Glu Gly  
65 70 75 80  
Trp Gly Lys Ser Pro Pro Val Pro Phe Leu Trp Pro Cys Cys Pro His  
85 90 95  
Thr Gln Leu Arg Gly Pro Thr Leu Gly Lys Ala Gly Ser Ala Arg Ser  
100 105 110  
Leu Ser Pro Ile Ser Ala Leu Ser Ala Trp Ile Pro Ala Glu Ala Met  
115 120 125

525

Lys Gly Asn Lys Glu Lys Arg Xaa Xaa Lys Lys Lys Lys Lys Lys Lys  
 130 135 140

Lys Lys Lys Lys Lys Lys Lys Xaa Pro  
 145 150

<210> 570

<211> 327

<212> PRT

<213> Homo sapiens

<400> 570

Pro Gly Ser Pro Arg Arg Cys Asp Ile Ile Ile Ile Ser Gly Arg Lys  
 1 5 10 15

Glu Lys Cys Glu Ala Ala Lys Glu Ala Leu Glu Ala Leu Val Pro Val  
 20 25 30

Thr Ile Glu Val Glu Val Pro Phe Asp Leu His Arg Tyr Val Ile Gly  
 35 40 45

Gln Lys Gly Ser Gly Ile Arg Lys Met Met Asp Glu Phe Glu Val Asn  
 50 55 60

Ile His Val Pro Ala Pro Glu Leu Gln Ser Asp Ile Ile Ala Ile Thr  
 65 70 75 80

Gly Leu Ala Ala Asn Leu Asp Arg Ala Lys Ala Gly Leu Leu Glu Arg  
 85 90 95

Val Lys Glu Leu Gln Ala Glu Gln Glu Asp Arg Ala Leu Arg Ser Phe  
 100 105 110

Lys Leu Ser Val Thr Val Asp Pro Lys Tyr His Pro Lys Ile Ile Gly  
 115 120 125

Arg Lys Gly Ala Val Ile Thr Gln Ile Arg Leu Glu His Asp Val Asn  
 130 135 140

Ile Gln Phe Pro Asp Lys Asp Asp Gly Asn Gln Pro Gln Asp Gln Ile  
 145 150 155 160

Thr Ile Thr Gly Tyr Glu Lys Asn Thr Glu Ala Ala Arg Asp Ala Ile  
 165 170 175

Leu Arg Ile Val Gly Glu Leu Glu Gln Met Val Ser Glu Asp Val Pro  
 180 185 190

Leu Asp His Arg Val His Ala Arg Ile Ile Gly Ala Arg Gly Lys Ala

526

	195						200					205				
Ile	Arg 210	Lys	Ile	Met	Asp	Glu 215	Phe	Lys	Val	Asp	Ile 220	Arg	Phe	Pro	Gln	
Ser 225	Gly	Ala	Pro	Asp	Pro 230	Asn	Cys	Val	Thr	Val 235	Thr	Gly	Leu	Pro	Glu 240	
Asn	Val	Glu	Glu	Ala 245	Ile	Asp	His	Ile	Leu 250	Asn	Leu	Glu	Glu	Glu 255	Tyr	
Leu	Ala	Asp	Val 260	Val	Asp	Ser	Glu	Ala 265	Leu	Gln	Val	Tyr	Met	Lys	Pro	
Pro	Ala 275	His	Glu	Glu	Ala	Lys	Ala 280	Pro	Ser	Arg	Gly	Phe 285	Val	Val	Arg	
Asp 290	Ala	Pro	Trp	Thr	Ala	Ser 295	Ser	Ser	Glu	Lys	Ala 300	Pro	Asp	Met	Ser	
Ser 305	Ser	Glu	Glu	Phe	Pro 310	Ser	Phe	Gly	Ala	Gln	Val 315	Ala	Pro	Lys	Thr 320	
Leu	Pro	Trp	Gly	Pro 325	Lys	Arg										

<210> 571

<211> 166

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$ 

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 571

Gly Asn Ser Arg Val Asp Pro Arg Xaa Arg Gly Xaa Ala His Thr Cys  
1 5 10 15

Ala Pro Cys Pro Ala Pro Gly Pro Leu Ala Gly Arg Ala Val Ser Gly  
20 25 30

His Gly Ser Leu Pro Pro Asp Arg Arg Ala Pro Ser Ala Leu Ser Ser

527

35	40	45
Pro Ala Asp Glu Gly Glu Arg Arg Arg Pro Asp Leu Asp Glu Ile His		
50	55	60
Arg Glu Leu Arg Pro Gln Gly Ser Ala Arg Pro Gln Pro Asp Pro Asn		
65	70	75 80
Ala Glu Phe Asp Pro Asp Leu Pro Gly Gly Gly Leu His Arg Cys Leu		
85	90	95
Ala Cys Ala Arg Tyr Phe Ile Asp Ser Thr Asn Leu Lys Thr His Phe		
100	105	110
Arg Ser Lys Asp His Lys Lys Arg Leu Lys Gln Leu Ser Val Glu Pro		
115	120	125
Tyr Ser Gln Glu Glu Ala Glu Arg Ala Ala Gly Met Gly Ser Tyr Val		
130	135	140
Pro Pro Arg Arg Leu Ala Val Pro Thr Glu Val Ser Thr Glu Val Pro		
145	150	155 160
Glu Met Asp Thr Ser Thr		
165		

<210> 572  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 572

Gln Ser Ser Thr Phe His Pro Ala Pro Ala Phe Gly Ala Thr Val Ala
1 5 10 15
Ala Phe His Arg Arg Ala Ala Leu Arg Ala Pro Glu Pro Ala Met Ser
20 25 30
Gly Pro Asn Gly Asp Leu Gly Met Pro Val Glu Ala Gly Ala Glu Gly
35 40 45
Glu Glu Asp Gly Phe Gly Glu Ala Glu Tyr Ala Ala Ile Asn Ser Met
50 55 60
Leu Asp Gln Ile Asn Ser Cys Leu Asp His Leu Glu Glu Lys Asn Asp
65 70 75 80
His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg Gln Thr
85 90 95

528

Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp Ala Ser  
                   100                                  105                                  110

Pro

&lt;210&gt; 573

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 573

Gly Ser Gly Ser Ser Arg Asp Leu His Lys Ala Leu Trp Glu Ala Gly  
       1                                  5                                  10                                  15

Trp Glu Thr Val Glu Gly Gly Cys Pro Leu Xaa Pro Arg Arg His Arg  
                   20                                  25                                  30

Ile Trp Ala Leu Xaa Xaa Ala Phe Leu Pro Glu Tyr Ala Ala Ile Asn  
                   35                                  40                                  45

Ser Met Leu Asp Gln Ile Asn Ser Cys Leu Asp His Leu Glu Glu Lys  
           50                                  55                                  60

Asn Asp His Leu His Ala Arg Leu Gln Glu Leu Leu Glu Ser Asn Arg  
       65                                  70                                  75                                  80

Gln Thr Arg Leu Glu Phe Gln Gln Gln Leu Gly Glu Ala Pro Ser Asp  
                   85                                  90                                  95

Ala Ser Pro



529

<210> 574  
 <211> 197  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (97)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (129)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 574  
 Arg Trp Ala Arg Val Glu Ala Ala Val Met Glu Gly Ala Gly Ala Gly  
     1                    5                    10                    15  
 Ser Gly Phe Arg Lys Glu Leu Val Ser Arg Leu Leu His Leu His Phe  
                     20                    25                    30  
 Lys Asp Asp Lys Thr Lys Val Ser Gly Asp Ala Leu Gln Leu Met Val  
                     35                    40                    45  
 Glu Leu Leu Lys Val Phe Val Val Glu Ala Ala Val Arg Gly Val Arg  
                     50                    55                    60  
 Gln Ala Gln Ala Glu Asp Ala Leu Arg Val Asp Val Asp Gln Leu Glu  
                     65                    70                    75                    80  
 Lys Val Leu Arg Ser Cys Ser Gly Leu Leu Gly Ile Ser Ala Val Ala  
                     85                    90                    95  
 Xaa Ala Thr Pro Arg Gly Ala Pro Gly Pro Gln Lys Gln Ala Leu Cys  
                     100                    105                    110  
 Phe Gln Arg Pro Leu Ile Arg Gly Arg Glu Gly Xaa Glu Gly Phe Gly  
                     115                    120                    125  
 Xaa Asp Ser Asn Lys Ile Ser Gly Ser Leu Gln Pro Val Gln Lys Gly  
                     130                    135                    140  
 Gln Asp Cys Ser Ala Leu Arg Ala Leu Glu Cys Pro Val Gly Thr Leu

530

145						150						155						160
Val	Trp	Glu	Gly	Ala	Ala	Pro	Gly	Glu	Ser	Leu	Pro	Leu	Leu	Pro	Gly			
				165			170				175							
Thr	Ile	Val	Cys	Met	Pro	Pro	Gly	Val	Leu	Gln	Ala	Gly	Ala	Gly	Lys			
				180			185				190							
Gly	Leu	Ala	Ser	Arg														
				195														

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<210> 575
<211> 47
<212> PRT
<213> Homo sapiens
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<400> 575
Leu Pro Met Val Asp Leu Met Glu Lys Leu Asn Ile Phe His Tyr Ala
 1             5             10             15
Leu Gln Asn Thr Val Tyr Val Ser Ala Ser Leu Gly Asn Gly Arg Gly
 20             25             30
Gln Lys Lys Val Thr Phe Asn Leu Cys Ile Phe Ala Lys Pro Tyr
 35             40             45

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<210> 576
<211> 115
<212> PRT
<213> Homo sapiens
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<400> 576
Trp Ser Arg Thr Ser Gln Pro Leu Pro Ser Thr Val Gly Cys Pro Arg
  1          5          10          15
Arg Arg Gly Phe Lys Asp Phe Gln Arg Arg Ile Leu Val Ala Thr Asn
          20          25          30
Leu Phe Gly Arg Gly Met Asp Ile Glu Arg Val Asn Ile Ala Phe Asn
          35          40          45
Tyr Asp Met Pro Glu Asp Ser Asp Thr Tyr Leu His Arg Val Ala Arg
          50          55          60
Ala Gly Arg Phe Gly Thr Lys Gly Leu Ala Ile Thr Phe Val Ser Asp
  65          70          75          80

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531

Glu Asn Asp Ala Lys Ile Leu Asn Asp Val Gln Asp Arg Phe Glu Val  
85 90 95

Asn Ile Ser Glu Leu Pro Asp Glu Ile Asp Ile Ser Ser Tyr Ile Glu  
100 105 110

Gln Thr Arg  
115

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<210> 577
<211> 346
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (37)
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 577
Val Thr Ser Cys Val Ala Leu Leu Pro Ala Arg Arg Met Thr Tyr Thr
  1              5              10              15

Thr Glu Thr Ala Leu Leu Asn Trp Ser Thr Cys Gln Met Val Leu Arg
      20              25              30

Gly Ala Glu Thr Xaa Gly Cys Val Ile Val Ser Ala Ala Lys Ala Gln
      35              40              45

Leu Leu Gln Cys Gln His His Pro Ala Trp Tyr Gly Asp Thr Leu Lys
      50              55              60

Gln Lys Thr Ser Trp Thr Cys Leu Leu Asp Gly Met Gln Tyr Phe Ala
  65              70              75              80

Thr Thr Glu Ser Ser Pro Thr Glu Gln Asp Gly Arg Gln Leu Trp Leu
      85              90              95

Glu Val Lys Asn Ile Glu Glu His Arg Gln Arg Ser Leu Asp Ser Val
      100             105             110

Gln Glu Leu Met Glu Ser Gly Gln Ala Val Gly Gly Met Val Thr Thr
      115             120             125

Thr Thr Asp Trp Asn Gln Pro Ala Glu Ala Gln Gln Ala Gln Gln Val
      130             135             140

Gln Arg Ile Ile Ser Arg Cys Asn Cys Arg Met Tyr Tyr Ile Ser Tyr
  145             150             155             160

```

532

Ser His Asp Ile Asp Pro Glu Leu Ala Thr Gln Ile Lys Pro Pro Glu  
 165 170 175  
 Val Leu Glu Asn Gln Glu Lys Glu Asp Leu Leu Lys Lys Gln Glu Gly  
 180 185 190  
 Ala Val Asp Thr Phe Thr Leu Ile His His Glu Leu Glu Ile Ser Thr  
 195 200 205  
 Asn Pro Ala Gln Tyr Ala Met Ile Leu Asp Ile Val Asn Asn Leu Leu  
 210 215 220  
 Leu His Val Glu Pro Lys Arg Lys Glu His Ser Glu Lys Lys Gln Arg  
 225 230 235 240  
 Val Arg Phe Gln Leu Glu Ile Ser Ser Asn Pro Glu Glu Gln Arg Ser  
 245 250 255  
 Ser Ile Leu His Leu Gln Glu Ala Val Arg Gln His Val Ala Gln Ile  
 260 265 270  
 Arg Gln Leu Glu Lys Gln Met Tyr Ser Ile Met Lys Ser Leu Gln Asp  
 275 280 285  
 Asp Ser Lys Asn Glu Asn Leu Leu Asp Leu Asn Gln Lys Leu Gln Leu  
 290 295 300  
 Gln Leu Asn Gln Glu Lys Ala Asn Leu Gln Leu Glu Ser Glu Glu Leu  
 305 310 315 320  
 Asn Ile Leu Ile Arg Cys Phe Lys Asp Phe Gln Leu Gln Arg Ala Asn  
 325 330 335  
 Lys Met Glu Leu Arg Lys His Lys Lys Met  
 340 345

&lt;210&gt; 578

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 578

Arg His Glu Gly His Leu Gly Ser Gly Arg Asn Gly Gly Gly Ser Met  
 1 5 10 15

Asn Ala Pro Pro Ala Phe Glu Ser Phe Leu Leu Phe Glu Gly Glu Lys  
 20 25 30

533

Ile Thr Ile Asn Lys Asp Thr Lys Val Pro Asn Ala Cys Leu Phe Thr  
35 40 45

Ile Asn Lys Glu Asp His Thr Leu Gly Asn Ile Ile Lys Ser Arg Ala  
50 55 60

Cys Phe Pro Phe Ala Phe Cys Arg Asp Cys Gln Phe Pro Glu Ala Ser  
65 70 75 80

Pro Ala Thr Leu Pro Val Gln Pro Ala Glu Leu  
85 90

<210> 579

<211> 331

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (300)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (311)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (313)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (320)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

534

&lt;222&gt; (325)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 579

Gly	Arg	Pro	Thr	Arg	Pro	Gly	Gly	Leu	Gly	Ser	Gly	Val	Leu	Ala	Leu
1				5				10					15		
Ala	Xaa	Gly	Xaa	Pro	Ala	Arg	Leu	Ala	Gly	Thr	Val	His	Glu	Val	Gly
		20					25					30			
Asp	Ala	Pro	Arg	Arg	Ala	Pro	Asp	Gln	Ala	Ala	Glu	Ile	Gly	Ser	Arg
		35					40					45			
Gly	Ser	Thr	Lys	Ala	Gln	Gly	Pro	Gln	Gln	Gln	Pro	Gly	Ser	Glu	Gly
	50					55					60				
Pro	Ser	Tyr	Ala	Lys	Lys	Val	Ala	Leu	Trp	Leu	Ala	Gly	Leu	Leu	Gly
65					70				75						80
Ala	Gly	Gly	Thr	Val	Ser	Val	Val	Tyr	Ile	Phe	Gly	Asn	Asn	Pro	Val
				85					90					95	
Asp	Glu	Asn	Gly	Ala	Lys	Ile	Pro	Asp	Glu	Phe	Asp	Asn	Asp	Pro	Ile
		100						105				110			
Leu	Val	Gln	Gln	Leu	Arg	Arg	Thr	Tyr	Lys	Tyr	Phe	Lys	Asp	Tyr	Arg
	115						120					125			
Gln	Met	Ile	Ile	Glu	Pro	Thr	Ser	Pro	Cys	Leu	Leu	Pro	Asp	Pro	Leu
	130					135					140				
Gln	Glu	Pro	Tyr	Tyr	Gln	Pro	Pro	Tyr	Thr	Leu	Val	Leu	Glu	Leu	Thr
145					150					155					160
Gly	Val	Leu	Leu	His	Pro	Glu	Trp	Ser	Leu	Ala	Thr	Gly	Trp	Arg	Phe
				165					170					175	
Lys	Lys	Arg	Pro	Gly	Ile	Glu	Thr	Leu	Phe	Gln	Gln	Leu	Ala	Pro	Leu
			180					185					190		
Tyr	Glu	Ile	Val	Ile	Phe	Thr	Ser	Glu	Thr	Gly	Met	Thr	Ala	Phe	Pro
	195						200					205			
Leu	Ile	Asp	Ser	Val	Asp	Pro	His	Gly	Phe	Ile	Ser	Tyr	Arg	Leu	Phe
	210					215					220				
Arg	Asp	Ala	Thr	Arg	Tyr	Met	Asp	Gly	His	His	Val	Lys	Asp	Ile	Ser
225					230					235					240
Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
				245					250					255	

535

Glu Ala Phe Arg Leu Gln Pro Tyr Asn Gly Val Ala Leu Arg Pro Trp  
260 265 270

Asp Gly Asn Ser Asp Asp Arg Val Leu Leu Asp Leu Ser Ala Phe Leu  
275 280 285

Lys Thr Ile Ala Leu Asn Gly Val Gly Gly Arg Xaa Glu Pro Cys Trp  
290 295 300

Glu His Tyr Ala Leu Gly Xaa Asp Xaa Pro Arg Trp Ala Ala Phe Xaa  
305 310 315 320

Asn Ser Gly Lys Xaa Gly Leu Glu Ala Gly Arg  
325 330

&lt;210&gt; 580

&lt;211&gt; 374

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (235)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (285)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (307)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (319)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (324)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (341)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (359)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 580

Pro Ser Thr Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Pro Arg  
1 5 10 15

Val Arg Ala Gly Val Ala Ala Leu Ala Thr Val Gly Val Ala Ser Gly  
20 25 30

Pro Gly Pro Gly Arg Pro Gly Pro Leu Gln Asp Glu Thr Leu Gly Val  
35 40 45

Ala Ser Val Pro Ser Gln Trp Arg Ala Val Gln Gly Ile Arg Gly Glu  
50 55 60

Thr Lys Ser Cys Gln Thr Ala Ser Ile Ala Thr Ala Ser Ala Ser Ala  
65 70 75 80

Gln Ala Arg Asn His Val Asp Ala Gln Val Gln Thr Glu Ala Pro Val  
85 90 95

Pro Val Ser Val Gln Pro Pro Ser Gln Tyr Asp Ile Pro Arg Leu Ala  
100 105 110

Ala Phe Leu Arg Arg Val Glu Ala Met Val Ile Arg Glu Leu Asn Lys  
115 120 125

Asn Trp Gln Ser His Ala Phe Asp Gly Phe Glu Val Asn Trp Thr Glu  
130 135 140

Gln Gln Gln Met Val Ser Cys Leu Tyr Thr Leu Gly Tyr Pro Pro Ala  
145 150 155 160

Gln Ala Gln Gly Leu His Val Thr Ser Ile Ser Trp Asn Ser Thr Gly  
165 170 175

Ser Val Val Ala Cys Ala Tyr Gly Arg Leu Asp His Gly Asp Trp Ser  
180 185 190

Thr Leu Lys Ser Phe Val Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu  
195 200 205

Arg Pro Gln Gln Pro Ser Ala Val Val Glu Val Pro Ser Ala Val Leu  
210 215 220

Cys Leu Ala Phe His Pro Thr Gln Pro Ser Xaa Val Ala Gly Gly Leu



537

225				230				235				240				
Tyr	Ser	Gly	Glu	Val	Leu	Val	Trp	Asp	Leu	Ser	Arg	Leu	Glu	Asp	Pro	
				245					250					255		
Leu	Leu	Trp	Arg	Thr	Gly	Leu	Thr	Asp	Asp	Thr	His	Thr	Asp	Pro	Val	
				260					265					270		
Ser	Gln	Val	Val	Trp	Leu	Pro	Glu	Pro	Gly	His	Ser	Xaa	Arg	Phe	Gln	
				275					280					285		
Val	Leu	Ser	Val	Ala	Thr	Asp	Gly	Lys	Val	Leu	Leu	Trp	Gln	Gly	Ile	
				290					295					300		
Gly	Val	Xaa	Gln	Leu	Gln	Phe	Thr	Glu	Gly	Phe	Ala	Trp	Phe	Xaa	Gln	
305					310					315					320	
Gln	Leu	Pro	Xaa	Ser	Thr	Lys	Leu	Lys	Lys	His	Pro	Arg	Gly	Arg	Pro	
				325					330					335		
Arg	Trp	Ala	Pro	Xaa	Gln	Ala	Phe	Phe	Gln	Phe	Asp	Leu	Arg	Phe	Ser	
				340					345					350		
Phe	Trp	Gln	Glu	Ala	Val	Xaa	Val	Gln	Phe	Ser	Trp	His	Trp	Arg	Ala	
				355					360					365		
Ala	Leu	Arg	Gly	Ala	His											
370																

<210> 581

<211> 94

<212> PRT

<213> Homo sapiens

<220>

&lt;221&gt; SITE

$\langle 222 \rangle$  (80)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

&lt;221&gt; SITE

$\langle 222 \rangle$  (90)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 581

Cys Pro Asp Gln Asn Gly Trp Ala Ser Phe Gly Ala Pro Leu Ser Ala  
1 5 10 15

Gly Gly Gln Pro Cys Tyr Leu Leu Asp Ile Gly Cys Gly Ser Gly Leu

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<210> 582
<211> 163
<212> PRT
<213> Homo sapiens
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<400> 582															
Pro	Thr	Arg	Pro	Ala	Ala	Gly	Gly	Ala	Glu	Arg	Ile	Ala	Gly	Ser	Ala
1				5					10					15	
Met	Ser	Ser	Glu	Pro	Pro	Pro	Pro	Pro	Gln	Pro	Pro	Thr	His	Gln	Ala
			20					25					30		
Ser	Val	Gly	Leu	Leu	Asp	Thr	Pro	Arg	Ser	Arg	Glu	Arg	Ser	Pro	Ser
		35					40					45			
Pro	Leu	Arg	Gly	Asn	Val	Val	Pro	Ser	Pro	Leu	Pro	Thr	Arg	Arg	Thr
	50					55					60				
Arg	Thr	Phe	Ser	Ala	Thr	Val	Arg	Ala	Ser	Gln	Gly	Pro	Val	Tyr	Lys
65					70					75					80
Gly	Val	Cys	Lys	Cys	Phe	Cys	Arg	Ser	Lys	Gly	His	Gly	Phe	Ile	Thr
				85					90					95	
Pro	Ala	Asp	Gly	Gly	Pro	Asp	Ile	Phe	Leu	His	Ile	Ser	Asp	Val	Glu
			100					105					110		
Gly	Glu	Tyr	Val	Pro	Val	Glu	Gly	Asp	Glu	Val	Thr	Tyr	Lys	Met	Cys
		115					120					125			
Ser	Ile	Pro	Pro	Lys	Asn	Glu	Lys	Leu	Gln	Ala	Val	Glu	Val	Val	Ile
	130					135					140				
Thr	His	Leu	Ala	Pro	Gly	Thr	Lys	His	Glu	Thr	Trp	Ser	Gly	His	Val
145					150					155					160

Ile Ser Ser

<210> 583  
 <211> 293  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (52)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (53)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (150)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (171)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (207)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (254)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 583  
 Leu Leu Gly Pro Asn Leu Thr Met Gly Ser Gln Pro Gly Arg Ile Pro  
     1                    5                    10                    15

Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr

540

[illegible]

541

290

&lt;210&gt; 584

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 584

Gly Gly Ala Gln Pro Gly Met Glu Gly Ala Ala Ala Thr Val His Leu  
1 5 10 15

Ile Ser Gln Trp Ala Val Glu Pro Asn Ala Arg Val Gly Pro Leu Leu  
20 25 30

Glu Val Glu Ala Ala Ala Ala Asp His His Glu Ala Ala Ala Gly Ala  
35 40 45

Gly Ser Ala Val Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu  
50 55 60

Ser Glu Ile Leu Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu  
65 70 75 80

Pro Val Pro His Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly  
85 90 95

Thr Ala Met Trp Phe Arg Thr Tyr Met Trp Gly Val Ile Tyr Leu Arg  
100 105 110

Asn Val Asp Pro Pro Val Trp Tyr Asp Thr Asp Val Lys Leu Phe Glu  
115 120 125

Ile Gln Arg Val  
130

&lt;210&gt; 585

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

<222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (117)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (140)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (141)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (188)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (199)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (200)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 585  
 Arg Glu Arg Cys Arg Arg Glu Ala Leu Arg Gly Ser Arg Leu Cys Pro  
     1                    5                    10                    15  
  
 Ala Thr Pro Pro Ser Ala Leu Gly Ser Gln Asp Gly Ser Arg Thr Arg  
                     20                    25                    30  
  
 Asp Arg Leu Gly Ala Ala Gly Trp Pro Gly Leu Val Val Gly Leu Cys  
             35                    40                    45  
  
 Thr Pro Ala Ala Gly Xaa Gln Arg Asp Leu Leu His Arg Arg Gly Gly  
     50                    55                    60  
  
 Thr Ala Ser Phe Gly Lys Ser Phe Ala Gln Lys Ser Gly Tyr Phe Leu  
     65                    70                    75                    80  
  
 Cys Leu Ser Ser Leu Gly Ser Leu Glu Asn Pro Xaa Glu Asn Val Val  
                     85                    90                    95

543

Ala Asp Ile Gln Ile Val Val Asp Lys Ser Pro Leu Pro Leu Gly Phe  
                   100                  105                  110  
 Ser Pro Val Cys Xaa Pro Met Asp Ser Lys Ala Ser Val Ser Lys Lys  
                   115                  120                  125  
 Lys Arg Met Cys Val Lys Leu Leu Pro Leu Gly Xaa Xaa Asp Thr Ala  
                   130                  135                  140  
 Val Phe Asp Val Arg Leu Ser Gly Lys Thr Lys Thr Val Pro Gly Tyr  
                   145                  150                  155                  160  
 Leu Arg Ile Gly Asp Met Gly Gly Phe Ala Ile Trp Cys Lys Lys Gly  
                   165                  170                  175  
 Gln Gly Pro Glu Ala Ser Cys Pro Lys Pro Arg Xaa Pro Gln Pro Gly  
                   180                  185                  190  
 Thr Cys Lys Gly Phe Ser Xaa Xaa Ala Ala Ser Gln Pro Lys Leu Arg  
                   195                  200                  205  
 Ala Gly Leu Leu Gly Ser Arg Thr Ser Val  
                   210                  215

&lt;210&gt; 586

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 586

Ala Arg Gly Glu Met Glu Gly Arg Gln Val Leu Glu Val Lys Met Gln  
           1                  5                  10                  15  
 Val Glu Tyr Met Ser Phe Ser Ala His Ala Asp Ala Lys Gly Ile Met  
                   20                  25                  30  
 Gln Leu Val Gly Gln Ala Glu Pro Xaa Ser Val Leu Leu Val His Gly  
                   35                  40                  45  
 Glu Ala Lys Lys Met Glu Phe Leu Lys Gln Lys Ile Glu Gln Glu Leu  
                   50                  55                  60  
 Arg Val Asn Cys Tyr Met Pro Ala Asn Gly Glu Thr Val Thr Leu Pro

544

65				70				75				80				
Thr	Ser	Pro	Ser	Ile	Pro	Val	Gly	Ile	Ser	Leu	Gly	Leu	Leu	Lys	Arg	
				85					90					95		
Glu	Met	Ala	Gln	Gly	Leu	Leu	Pro	Glu	Ala	Lys	Lys	Pro	Arg	Leu	Leu	
				100					105					110		
His	Gly	Thr	Leu	Ile	Met	Lys	Asp	Ser	Asn	Phe	Arg	Leu	Val	Ser	Ser	
				115					120					125		
Glu	Gln	Ala	Leu	Lys	Glu	Leu	Gly	Leu	Ala	Glu	His	Gln	Leu	Arg	Phe	
				130					135					140		
Thr	Cys	Arg	Val	His	Leu	His	Asp	Thr	Arg	Lys	Glu	Gln	Glu	Thr	Ala	
				145					150					155	160	
Leu	Arg	Val	Tyr	Ser	His	Leu	Lys	Ser	Val	Leu	Lys	Asp	His	Cys	Val	
				165					170					175		
Gln	His	Leu	Pro	Asp	Gly	Ser	Val	Thr	Val	Glu	Ser	Val	Leu	Leu	Gln	
				180					185					190		
Ala	Ala	Ala	Pro	Ser	Glu	Asp	Pro	Gly	Thr	Lys	Val	Leu	Leu	Val	Ser	
				195					200					205		
Trp	Thr	Tyr	Gln	Asp	Glu	Glu	Leu	Gly	Ser	Phe	Leu	Thr	Ser	Leu	Leu	
				210					215					220		
Lys	Lys	Gly	Leu	Pro	Gln	Ala	Pro	Ser								
				225					230							

<210> 587

<211> 116

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

$\langle 222 \rangle$  (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 587

Gly Pro Leu Ser His His Ile Arg Ala Gln Leu Ser Lys Met Leu Leu  
1 5 10 15

Ala Arg Lys Gln Ile Leu Cys Val Asn Val Lys Asn Phe Ala Val Ile  
20 25 30



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<210> 588
<211> 133
<212> PRT
<213> Homo sapiens
```

```

<400> 588
Ala Arg Ala Ala Val Gly Arg Thr Ala Gly Val Arg Thr Trp Ala Pro
  1              5              10              15
Leu Ala Met Ala Ala Lys Val Asp Leu Ser Thr Ser Thr Asp Trp Lys
          20              25              30
Glu Ala Lys Ser Phe Leu Lys Gly Leu Ser Asp Lys Gln Arg Glu Glu
          35              40              45
His Tyr Phe Cys Lys Asp Phe Val Arg Leu Lys Lys Ile Pro Thr Trp
          50              55              60
Lys Glu Met Ala Lys Gly Val Ala Val Lys Val Glu Glu Pro Arg Tyr
  65              70              75              80
Lys Lys Asp Lys Gln Leu Asn Glu Lys Ile Ser Leu Leu Arg Ser Asp
          85              90              95
Ile Thr Lys Leu Glu Val Asp Ala Ile Val Asn Ala Ala Asn Ser Ser
          100              105              110
Pro Pro Pro Arg Ser Leu Ile Lys Asp Leu Arg Cys Gly Lys Lys Lys
          115              120              125
Lys Lys Lys Lys Lys

```

546

130

&lt;210&gt; 589

&lt;211&gt; 163

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 589

Arg His Arg Gly Gln Pro Leu Arg Gln Thr Arg Ala Ser Ser Ser Pro  
 1 5 10 15

Gln Leu Ala Gly Arg Ser Ser Ser Val Leu Pro Ala Ala Ala Gln Pro  
 20 25 30

Cys Thr Pro Thr Met Asp Val Phe Lys Lys Gly Phe Ser Ile Ala Lys  
 35 40 45

Glu Gly Val Val Gly Ala Val Glu Lys Thr Lys Gln Gly Val Thr Glu  
 50 55 60

Ala Ala Glu Lys Thr Lys Glu Gly Val Met Tyr Val Gly Ala Lys Thr  
 65 70 75 80

Lys Glu Asn Val Val Gln Ser Val Thr Ser Val Ala Glu Lys Thr Lys  
 85 90 95

Glu Gln Ala Asn Ala Val Ser Glu Ala Val Val Ser Ser Val Asn Thr  
 100 105 110

Val Ala Thr Lys Thr Val Glu Glu Ala Glu Asn Ile Ala Val Thr Ser  
 115 120 125

Gly Val Val Arg Lys Glu Asp Leu Arg Pro Ser Ala Pro Gln Gln Glu  
 130 135 140

Gly Glu Ala Ser Lys Glu Lys Glu Glu Val Ala Glu Glu Ala Gln Ser  
 145 150 155 160

Gly Gly Asp

&lt;210&gt; 590

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 590

547

Arg Ala Leu Leu Cys Leu Gly His His Pro Leu Leu Ala Gln Gly Val  
 1 5 10 15  
 Pro Ala Leu Ser Asp Met Arg Leu Pro Thr Leu Leu Pro Ser Ser Pro  
 20 25 30  
 Trp Pro Pro Leu Ala Cys Pro Pro Val Leu Leu His Gln Pro His Cys  
 35 40 45  
 Pro Pro Ser Ala Pro Pro Thr Leu Trp Ser Phe  
 50 55

&lt;210&gt; 591

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 591

Val His Ala Glu Ala Gly Arg Leu Cys His Gly Asp Cys Pro Arg Leu  
 1 5 10 15  
 Cys Arg Pro Arg Gln Arg Ser Ala Pro Val Gln Val Tyr Thr Xaa Arg  
 20 25 30  
 Gln Ala Ala Leu His Gly Arg Pro Gln Arg Asp Pro Cys Val Gly Gly  
 35 40 45  
 Pro Arg Pro Leu Arg Cys Ser Arg Asp Cys Gly Gly Gly His Gln Arg  
 50 55 60  
 Leu Val Met Pro Gly Thr Trp Thr Gln Ala Trp Gln Arg Arg Gln Val  
 65 70 75 80  
 Val Asn Gly Leu Met Leu Gly Gln Ala Arg Ile His Val Asn Arg Leu  
 85 90 95  
 Glu Gln Ala Val Val Asn Leu Ala Pro Cys Glu Tyr Phe His Thr Cys  
 100 105 110  
 Cys Pro Phe Ala  
 115

548

<210> 592  
 <211> 290  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (30)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (239)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 592  
 Arg Arg Ser Leu Asn Thr His Gly Ser Gly Val Ser Val Cys Leu Gln  
     1                    5                    10                    15  
 Ser Leu Thr Leu Leu Ala Thr Leu Cys Pro Gly Asp Gln Xaa Ser Leu  
                     20                    25                    30  
 Gly Leu Leu Thr Pro Cys Tyr Ser Gly Ser Glu Pro Ser Gly Thr Phe  
                     35                    40                    45  
 Gly Pro Val Asn Pro Ser Leu Asn Asn Thr Tyr Glu Phe Met Ser Thr  
                     50                    55                    60  
 Phe Phe Leu Glu Val Ser Ser Val Phe Pro Asp Phe Tyr Leu His Leu  
     65                    70                    75                    80  
 Gly Gly Asp Glu Val Asp Phe Thr Cys Trp Lys Ser Asn Pro Glu Ile  
                     85                    90                    95  
 Gln Asp Phe Met Arg Lys Lys Gly Phe Gly Glu Asp Phe Lys Gln Leu  
                     100                    105                    110  
 Glu Ser Phe Tyr Ile Gln Thr Leu Leu Asp Ile Val Ser Ser Tyr Gly  
                     115                    120                    125  
 Lys Gly Tyr Val Val Trp Gln Glu Val Phe Asp Asn Lys Val Lys Ile  
     130                    135                    140  
 Gln Pro Asp Thr Ile Ile Gln Val Trp Arg Glu Asp Ile Pro Val Asn  
     145                    150                    155                    160  
 Tyr Met Lys Glu Leu Glu Leu Val Thr Lys Ala Gly Phe Arg Ala Leu  
                     165                    170                    175  
 Leu Ser Ala Pro Trp Tyr Leu Asn Arg Ile Ser Tyr Gly Pro Asp Trp  
                     180                    185                    190

549

Lys Asp Phe Tyr Val Val Glu Pro Leu Ala Phe Glu Gly Thr Pro Glu  
           195                                  200                                  205  
  
 Gln Lys Ala Leu Val Ile Gly Gly Glu Ala Cys Met Trp Gly Glu Tyr  
           210                                  215                                  220  
  
 Val Asp Asn Thr Asn Leu Val Pro Arg Leu Trp Pro Arg Ala Xaa Ala  
 225                                  230                                  235                                  240  
  
 Val Ala Glu Arg Leu Trp Ser Asn Lys Leu Thr Ser Asp Leu Thr Phe  
                                   245                                  250                                  255  
  
 Ala Tyr Glu Arg Leu Ser His Phe Arg Cys Glu Leu Leu Arg Arg Gly  
                                   260                                  265                                  270  
  
 Val Gln Ala Gln Pro Leu Asn Val Gly Phe Cys Glu Gln Glu Phe Glu  
           275                                  280                                  285  
  
 Gln Thr  
       290

&lt;210&gt; 593

&lt;211&gt; 665

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 593

Asp Ala Asp Gly Arg Met Asp Xaa Leu Val Ser Glu Cys Ser Ala Arg  
       1                                  5                                  10                                  15  
  
 Leu Leu Gln Gln Glu Glu Glu Ile Lys Ser Leu Thr Ala Glu Ile Asp  
           20                                  25                                  30  
  
 Arg Leu Lys Asn Cys Gly Cys Leu Gly Ala Ser Pro Asn Leu Glu Gln  
           35                                  40                                  45  
  
 Leu Gln Glu Glu Asn Leu Lys Leu Lys Tyr Arg Leu Asn Ile Leu Arg  
       50                                  55                                  60  
  
 Lys Ser Leu Gln Ala Glu Arg Asn Lys Pro Thr Lys Asn Met Ile Asn  
       65                                  70                                  75                                  80  
  
 Ile Ile Ser Arg Leu Gln Glu Val Phe Gly His Ala Ile Lys Ala Ala

550

85					90					95					
Tyr	Pro	Asp	Leu	Glu	Asn	Pro	Pro	Leu	Leu	Val	Thr	Pro	Ser	Gln	Gln
			100					105					110		
Ala	Lys	Phe	Gly	Asp	Tyr	Gln	Cys	Asn	Ser	Ala	Met	Gly	Ile	Ser	Gln
			115				120					125			
Met	Leu	Lys	Thr	Lys	Glu	Gln	Lys	Val	Asn	Pro	Arg	Glu	Ile	Ala	Glu
			130				135					140			
Asn	Ile	Thr	Lys	His	Leu	Pro	Asp	Asn	Glu	Cys	Ile	Glu	Lys	Val	Glu
145							150					155			160
Ile	Ala	Gly	Pro	Gly	Phe	Ile	Asn	Val	His	Leu	Arg	Lys	Asp	Phe	Val
				165					170						175
Ser	Glu	Gln	Leu	Thr	Ser	Leu	Leu	Val	Asn	Gly	Val	Gln	Leu	Pro	Ala
			180					185					190		
Leu	Gly	Glu	Asn	Lys	Lys	Val	Ile	Val	Asp	Phe	Ser	Ser	Pro	Asn	Ile
			195				200					205			
Ala	Lys	Glu	Met	His	Val	Gly	His	Leu	Arg	Ser	Thr	Ile	Ile	Gly	Glu
			210				215					220			
Ser	Ile	Ser	Arg	Leu	Phe	Glu	Phe	Ala	Gly	Tyr	Asp	Val	Leu	Arg	Leu
225							230					235			240
Asn	His	Val	Gly	Asp	Trp	Gly	Thr	Gln	Phe	Gly	Met	Leu	Ile	Ala	His
			245						250					255	
Leu	Gln	Asp	Lys	Phe	Pro	Asp	Tyr	Leu	Thr	Val	Ser	Pro	Pro	Ile	Gly
			260					265					270		
Asp	Leu	Gln	Val	Phe	Tyr	Lys	Glu	Ser	Lys	Lys	Arg	Phe	Asp	Thr	Glu
			275				280					285			
Glu	Glu	Phe	Lys	Lys	Arg	Ala	Tyr	Gln	Cys	Val	Val	Leu	Leu	Gln	Gly
			290				295					300			
Lys	Asn	Pro	Asp	Ile	Thr	Lys	Ala	Trp	Lys	Leu	Ile	Cys	Asp	Val	Ser
305							310					315			320
Arg	Gln	Glu	Leu	Asn	Lys	Ile	Tyr	Asp	Ala	Leu	Asp	Val	Ser	Leu	Ile
			325						330					335	
Glu	Arg	Gly	Glu	Ser	Phe	Tyr	Gln	Asp	Arg	Met	Asn	Asp	Ile	Val	Lys
			340					345					350		
Glu	Phe	Glu	Asp	Arg	Gly	Phe	Val	Gln	Val	Asp	Asp	Gly	Arg	Lys	Ile

551

355	360	365
Val Phe Val Pro Gly Cys Ser Ile Pro Leu Thr Ile Val Lys Ser Asp		
370	375	380
Gly Gly Tyr Thr Tyr Asp Thr Ser Asp Leu Ala Ala Ile Lys Gln Arg		
385	390	395 400
Leu Phe Glu Glu Lys Ala Asp Met Ile Ile Tyr Val Val Asp Asn Gly		
	405	410 415
Gln Ser Val His Phe Gln Thr Ile Phe Ala Ala Ala Gln Met Ile Gly		
	420	425 430
Trp Tyr Asp Pro Lys Val Thr Arg Val Phe His Ala Gly Phe Gly Val		
	435	440 445
Val Leu Gly Glu Asp Lys Lys Lys Phe Lys Thr Arg Ser Gly Glu Thr		
	450	455 460
Val Arg Leu Met Asp Leu Leu Gly Glu Gly Leu Lys Arg Ser Met Asp		
	465	470 475 480
Lys Leu Lys Glu Lys Glu Arg Asp Lys Val Leu Thr Ala Glu Glu Leu		
	485	490 495
Asn Ala Ala Gln Thr Ser Val Ala Tyr Gly Cys Ile Lys Tyr Ala Asp		
	500	505 510
Leu Ser His Asn Arg Leu Asn Asp Tyr Ile Phe Ser Phe Asp Lys Met		
	515	520 525
Leu Asp Asp Arg Gly Asn Thr Ala Ala Tyr Leu Leu Tyr Ala Phe Thr		
	530	535 540
Arg Ile Arg Ser Ile Ala Arg Leu Ala Asn Ile Asp Glu Glu Met Leu		
	545	550 555 560
Gln Lys Ala Ala Arg Glu Thr Lys Ile Leu Leu Asp His Glu Lys Glu		
	565	570 575
Trp Lys Leu Gly Arg Cys Ile Leu Arg Phe Pro Glu Ile Leu Gln Lys		
	580	585 590
Ile Leu Asp Asp Leu Phe Leu His Thr Leu Cys Asp Tyr Ile Tyr Glu		
	595	600 605
Leu Ala Thr Ala Phe Thr Glu Phe Tyr Asp Ser Cys Tyr Cys Val Glu		
	610	615 620
Lys Asp Arg Gln Thr Gly Lys Ile Leu Lys Val Asn Met Trp Arg Met		

552

625                      630                      635                      640  
 Leu Leu Cys Glu Ala Val Ala Ala Val Met Ala Lys Gly Phe Asp Ile  
                                 645                      650                      655  
 Leu Gly Ile Lys Pro Val Gln Arg Met  
                                 660                      665

<210> 594  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 594  
 Thr Val Thr Glu Thr Thr Val Thr Val Thr Thr Glu Pro Glu Asn Arg  
   1                      5                      10                      15  
 Ser Leu Thr Ile Lys Leu Arg Lys Arg Lys Pro Glu Lys Lys Val Glu  
                                 20                      25                      30  
 Trp Thr Ser Asp Thr Val Asp Asn Glu His Met Gly Arg Arg Ser Ser  
                                 35                      40                      45  
 Lys Cys Cys Cys Ile Tyr Glu Lys Pro Arg Ala Phe Gly Glu Ser Ser  
                                 50                      55                      60  
 Thr Glu Ser Asp Glu Glu Glu Glu Gly Cys Gly His Thr His Cys  
   65                      70                      75                      80  
 Val Arg Gly His Arg Lys Gly Arg Arg Arg Ala Thr Leu Gly Pro Thr  
                                 85                      90                      95  
 Pro Thr Thr Pro Pro Gln Pro Pro Asp Pro Ser Gln Pro Pro Pro Gly  
                                 100                      105                      110  
 Pro Met Gln His  
                                 115

<210> 595  
 <211> 294  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (269)  
 <223> Xaa equals any of the naturally occurring L-amino acids



&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (278)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 595

Thr	Gln	Leu	Arg	Val	Ser	Glu	Arg	Glu	Gly	Pro	Gly	Asp	Pro	Gln	Arg
1				5					10					15	

Phe	Ser	Asp	His	Thr	Leu	Arg	Thr	Pro	Arg	Leu	Glu	Asp	Arg	Pro	Gly
			20					25					30		

Asp	Ala	Met	Trp	Gly	Glu	Gly	Leu	Arg	Ala	Trp	Cys	Arg	Phe	Val	Glu
		35					40					45			

Asn	Arg	Trp	Cys	Leu	Lys	Arg	Val	Ser	Ala	Pro	Leu	His	Leu	Gly	Leu
	50					55					60				

Leu	Gly	Cys	Pro	Asp	Ala	Glu	Ala	His	Phe	Pro	Ala	Met	Leu	Thr	Leu
65					70					75					80

Pro	Leu	Ser	Pro	Pro	Ser	Arg	Lys	Met	Ala	Thr	Asn	Phe	Leu	Ala	His
				85					90					95	

Glu	Lys	Ile	Trp	Phe	Asp	Lys	Phe	Lys	Tyr	Asp	Asp	Ala	Glu	Arg	Arg
		100						105					110		

Phe	Tyr	Glu	Gln	Met	Asn	Gly	Pro	Val	Ala	Gly	Ala	Ser	Arg	Gln	Glu
	115						120					125			

Asn	Gly	Ala	Ser	Val	Ile	Leu	Arg	Asp	Ile	Ala	Arg	Ala	Arg	Glu	Asn
	130					135				140					

Ile	Gln	Lys	Ser	Leu	Ala	Gly	Ser	Ser	Gly	Pro	Gly	Ala	Ser	Ser	Gly
145				150						155					160

Thr	Ser	Gly	Asp	His	Gly	Glu	Leu	Val	Val	Arg	Ile	Ala	Ser	Leu	Glu
				165					170					175	

Val	Glu	Asn	Gln	Ser	Leu	Arg	Gly	Val	Val	Gln	Glu	Leu	Gln	Gln	Ala
		180						185					190		

Ile	Ser	Lys	Leu	Glu	Ala	Arg	Leu	Asn	Val	Leu	Glu	Lys	Ser	Ser	Pro
		195					200					205			

Gly	His	Arg	Ala	Thr	Ala	Pro	Gln	Thr	Gln	His	Val	Ser	Pro	Met	Arg
	210					215					220				

Gln	Val	Glu	Pro	Pro	Ala	Lys	Lys	Pro	Ala	Thr	Pro	Ala	Glu	Asp	Asp
225					230					235					240

554

Glu Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp Asn Glu Glu Glu Asp  
245 250 255  
Lys Glu Ala Ala Gln Leu Arg Glu Glu Arg Leu Arg Xaa Tyr Ala Glu  
260 265 270  
Lys Lys Ala Lys Lys Xaa Ala Leu Val Ala Lys Ser Ser Ile Leu Leu  
275 280 285  
Asp Phe Lys Pro Trp Gly  
290

<210> 596  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 596  
Val Ser Arg Leu Gly Leu Leu Thr Pro Leu Gly Cys Ser Phe Gly Thr  
1 5 10 15  
Asp Glu Trp Leu Cys Pro Val Thr Ala Leu Ser Leu Pro Gly Gly Tyr  
20 25 30  
Val His Ser Arg Pro Leu Pro Arg Leu Arg Pro Met Arg Tyr Gly Asp  
35 40 45  
Thr Leu Ala Pro Arg Ser Trp Arg His Arg Pro Leu Pro Trp His Ser  
50 55 60  
Ser Phe Ala Gly Asp Pro Pro Leu Pro Lys Ala Leu Ser Pro Cys Ser  
65 70 75 80  
His Ser Arg Arg Thr Ala Ala Arg Ala Ser Gly Ser Leu Ala Thr Gly  
85 90 95  
Phe Glu Arg Leu His Ser Trp Gly Leu Glu Gly Gly Val Pro Lys Ala  
100 105 110  
Leu Ser Lys Ser Gln Ser Ser Ser His Gln Ser Leu Tyr Lys Val Leu  
115 120 125  
Gly Pro Glu Ala Leu Pro  
130

<210> 597

555

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 597

Glu Gly Pro Glu Gly Ala Asn Leu Phe Ile Tyr His Leu Pro Gln Glu  
1 5 10 15

Phe Gly Asp Gln Asp Ile Leu Gln Met Phe Met Pro Phe Gly Asn Val  
20 25 30

Ile Ser Ala Lys Val Phe Ile Asp Lys Gln Thr Asn Leu Ser Lys Cys  
35 40 45

Phe Gly Phe Val Ser Tyr Asp Asn Pro Val Ser Ala Gln Ala Ala Ile  
50 55 60

Gln Ala Met Asn Gly Phe Gln Ile Gly Met Lys Arg Leu Lys Val Gln  
65 70 75 80

Leu Lys Arg Ser Lys Asn Asp Ser Lys Pro Tyr  
85 90

&lt;210&gt; 598

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 598

Arg Pro Thr Arg Pro Glu Lys Val Gly Ser Gly Gly Ser Ser Val Gly  
1 5 10 15

Ser Gly Asp Ala Ser Ser Ser Arg His His Arg Arg Arg Arg Phe  
20 25 30

His Leu Pro Gln Gln Pro Leu Leu Gln Arg Glu Val Trp Cys Val Gly  
35 40 45

Thr Thr Gly Asn Ala Asn Gln Ala Gln Ser Ser Thr Glu Gln Thr Leu  
50 55 60

Leu Lys Pro Lys  
65

&lt;210&gt; 599

&lt;211&gt; 119

&lt;212&gt; PRT

<213> Homo sapiens

$\langle 220 \rangle$

&lt;221&gt; SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (88)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$ 

&lt;221&gt; SITE

<222> (98)

<223> Xaa equals any of the naturally occurring L-amino acids

$\langle 220 \rangle$

<221> SITE

<222> (99)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 599

Phe Gly Arg Asp Gln Val Tyr Leu Ser Tyr Asn Asn Val Ser Ser Leu  
1 5 10 15

Lys Met Leu Val Ala Lys Asp Asn Trp Val Leu Ser Ser Glu Ile Ser  
20 25 30

Gln Val Arg Leu Tyr Thr Leu Glu Asp Asp Lys Phe Leu Ser Phe His  
35 40 45

Met Glu Met Val Val His Val Asp Ala Xaa Gln Ala Phe Leu Leu Leu  
50 55 60

Ser	Asp	Leu	Xaa	Gln	Arg	Pro	Glu	Trp	Asp	Lys	His	Tyr	Arg	Ser	Val
65					70					75					80

Glu Leu Val Gln Gln Val Asp Xaa Gly Arg Arg His Leu Pro Arg His  
85 90 95

Gln Xaa Xaa Pro Arg Arg Ser His Lys Ala Pro Gly Leu Arg Asp Pro  
100 105 110

Gly Leu Glu Ala Glu Ala Leu  
115

<210> 600  
 <211> 177  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (69)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (135)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 600  
 Xaa Glu Arg Leu Arg Ala Gln Xaa Glu Lys Ser Arg Asp Ser Gln Pro  
           1                  5                  10                  15  
 Arg Leu Pro Leu Arg Phe Pro Ser Trp Arg Gly Pro Trp Cys Gly Ile  
                   20                  25                  30  
 Glu Ile Ala Gly Tyr Gly Ala Glu Val Phe Arg Gln Tyr Trp Asp Ile  
           35                  40                  45  
 Pro Asp Gly Thr Asp Cys His Arg Lys Ala Tyr Ser Thr Thr Ser Ile  
           50                  55                  60  
 Ala Ser Val Ala Xaa Leu Thr Ala Ala Ala Tyr Arg Val Thr Leu Asn  
           65                  70                  75                  80  
 Pro Pro Gly Thr Phe Leu Glu Gly Val Ala Lys Val Gly Gln Tyr Thr  
                   85                  90                  95  
 Phe Thr Ala Ala Ala Val Gly Ala Val Phe Gly Leu Thr Thr Cys Ile  
           100                  105                  110  
 Ser Ala His Val Arg Glu Lys Pro Asp Asp Pro Leu Asn Tyr Phe Leu

558

115                      120                      125  
 Gly Gly Cys Ala Gly Gly Xaa Thr Leu Gly Ala Arg Thr His Asn Tyr  
     130                      135                      140  
 Gly Ile Gly Ala Ala Ala Cys Val Tyr Phe Gly Ile Ala Ala Ser Leu  
     145                      150                      155                      160  
 Val Lys Met Gly Arg Leu Glu Gly Trp Glu Val Phe Ala Lys Pro Lys  
                     165                      170                      175  
 Val

<210> 601  
 <211> 218  
 <212> PRT  
 <213> Homo sapiens

<400> 601  
 Arg Gly Gly Gly Gly Gly Ala Ser Ser Cys Cys Cys Cys Ala Pro Ser  
     1                      5                      10                      15  
 Pro Arg Gly Arg Pro Val Pro Ala Arg Thr Pro Arg Arg Cys Pro Arg  
                     20                      25                      30  
 Pro Ser Pro Gly Pro Ala Met Gly Leu Thr Val Ser Ala Leu Phe Ser  
                     35                      40                      45  
 Arg Ile Phe Gly Lys Lys Gln Met Arg Ile Leu Met Val Gly Leu Asp  
     50                      55                      60  
 Ala Ala Gly Lys Thr Thr Ile Leu Tyr Lys Leu Lys Leu Gly Glu Ile  
     65                      70                      75                      80  
 Val Thr Thr Ile Pro Thr Ile Gly Phe Asn Val Glu Thr Val Glu Tyr  
                     85                      90                      95  
 Lys Asn Ile Cys Phe Thr Val Trp Asp Val Gly Gly Gln Asp Lys Ile  
                     100                      105                      110  
 Arg Pro Leu Trp Arg His Tyr Phe Gln Asn Thr Gln Gly Leu Ile Phe  
     115                      120                      125  
 Val Val Asp Ser Asn Asp Arg Glu Arg Val Gln Glu Ser Ala Asp Glu  
     130                      135                      140  
 Leu Gln Lys Met Leu Gln Glu Asp Glu Leu Arg Asp Ala Val Leu Leu  
     145                      150                      155                      160

559

Val	Phe	Ala	Asn	Lys	Gln	Asp	Met	Pro	Asn	Ala	Met	Pro	Val	Ser	Glu
				165					170					175	
Leu	Thr	Asp	Lys	Leu	Gly	Leu	Gln	His	Leu	Arg	Ser	Arg	Thr	Trp	Tyr
			180					185					190		
Val	Gln	Ala	Thr	Cys	Ala	Thr	Gln	Gly	Thr	Gly	Leu	Tyr	Asp	Gly	Leu
		195					200					205			
Asp	Trp	Leu	Ser	His	Glu	Leu	Ser	Lys	Arg						
	210						215								

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<210> 602
<211> 829
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<220>
<221> SITE
<222> (454)
<223> Xaa equals any of the naturally occurring L-amino acids
```

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<400> 602
Pro Gly Gln Ala Gly Ala Glu Gly His Val Arg Cys Cys Pro Gly Glu
  1                               5                10                15

Glu Gln Lys Ala Gly Gly Glu Arg Arg Cys Pro Gly Pro Gln Arg Xaa
                20                25                30

Gly Ala Ala Leu Gly Pro Gly Pro Gly Glu Ala Arg Leu Asp Tyr Ser
          35                40                45

Glu Phe Phe Thr Glu Asp Val Gly Gln Leu Pro Gly Leu Thr Ile Trp
  50                55                60

Gln Ile Glu Asn Phe Val Pro Val Leu Val Glu Glu Ala Phe His Gly
  65                70                75                80

Lys Phe Tyr Glu Ala Asp Cys Tyr Ile Val Leu Lys Thr Phe Leu Asp
                85                90                95

Asp Ser Gly Ser Leu Asn Trp Glu Ile Tyr Tyr Trp Ile Gly Gly Glu
          100                105                110

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560

Ala	Thr	Leu	Asp	Lys	Lys	Ala	Cys	Ser	Ala	Ile	His	Ala	Val	Asn	Leu	115	120	125
Arg	Asn	Tyr	Leu	Gly	Ala	Glu	Cys	Arg	Thr	Val	Arg	Glu	Glu	Met	Gly	130	135	140
Asp	Glu	Ser	Glu	Glu	Phe	Leu	Gln	Val	Phe	Asp	Asn	Asp	Ile	Ser	Tyr	145	150	155
Ile	Glu	Gly	Gly	Thr	Ala	Ser	Gly	Phe	Tyr	Thr	Val	Glu	Asp	Thr	His	165	170	175
Tyr	Val	Thr	Arg	Met	Tyr	Arg	Val	Tyr	Gly	Lys	Lys	Asn	Ile	Lys	Leu	180	185	190
Glu	Pro	Val	Pro	Leu	Lys	Gly	Thr	Ser	Leu	Asp	Pro	Arg	Phe	Val	Phe	195	200	205
Leu	Leu	Asp	Arg	Gly	Leu	Asp	Ile	Tyr	Val	Trp	Arg	Gly	Ala	Gln	Ala	210	215	220
Thr	Leu	Ser	Ser	Thr	Thr	Lys	Ala	Arg	Leu	Phe	Ala	Glu	Lys	Ile	Asn	225	230	235
Lys	Asn	Glu	Arg	Lys	Gly	Lys	Ala	Glu	Ile	Thr	Leu	Leu	Val	Gln	Gly	245	250	255
Gln	Glu	Leu	Pro	Glu	Phe	Trp	Glu	Ala	Leu	Gly	Gly	Glu	Pro	Ser	Glu	260	265	270
Ile	Lys	Lys	His	Val	Pro	Glu	Asp	Phe	Trp	Pro	Pro	Gln	Pro	Lys	Leu	275	280	285
Tyr	Lys	Val	Gly	Leu	Gly	Leu	Gly	Tyr	Leu	Glu	Leu	Pro	Gln	Ile	Asn	290	295	300
Tyr	Lys	Leu	Ser	Val	Glu	His	Lys	Gln	Arg	Pro	Lys	Val	Glu	Leu	Met	305	310	315
Pro	Arg	Met	Arg	Leu	Leu	Gln	Ser	Leu	Leu	Asp	Thr	Arg	Cys	Val	Asn	325	330	335
Ile	Leu	Asp	Cys	Trp	Ser	Asp	Val	Phe	Ile	Trp	Leu	Gly	Arg	Lys	Ser	340	345	350
Pro	Arg	Leu	Val	Arg	Ala	Ala	Ala	Leu	Lys	Leu	Gly	Gln	Glu	Leu	Cys	355	360	365
Gly	Met	Leu	His	Arg	Pro	Arg	His	Ala	Thr	Val	Ser	Arg	Ser	Leu	Glu	370	375	380



Gly	Thr	Glu	Ala	Gln	Val	Phe	Lys	Ala	Lys	Phe	Lys	Asn	Trp	Asp	Asp		
385					390					395					400		
Val	Leu	Thr	Val	Asp	Tyr	Thr	Arg	Asn	Ala	Glu	Ala	Val	Leu	Gln	Ser		
				405					410					415			
Pro	Gly	Leu	Ser	Gly	Lys	Val	Lys	Arg	Asp	Ala	Glu	Lys	Lys	Asp	Gln		
			420					425						430			
Met	Lys	Ala	Asp	Leu	Thr	Ala	Leu	Phe	Leu	Pro	Arg	Gln	Pro	Pro	Met		
		435					440					445					
Ser	Leu	Ala	Glu	Ala	Xaa	Gln	Leu	Met	Glu	Glu	Trp	Asn	Glu	Asp	Leu		
	450					455					460						
Asp	Gly	Met	Glu	Gly	Phe	Val	Leu	Glu	Gly	Lys	Lys	Phe	Ala	Arg	Leu		
465					470				475						480		
Pro	Glu	Glu	Glu	Phe	Gly	His	Phe	Tyr	Thr	Gln	Asp	Cys	Tyr	Val	Phe		
				485					490					495			
Leu	Cys	Arg	Tyr	Trp	Val	Pro	Val	Glu	Tyr	Glu	Glu	Glu	Glu	Lys	Lys		
			500					505					510				
Glu	Asp	Lys	Glu	Glu	Lys	Ala	Glu	Gly	Lys	Glu	Gly	Glu	Glu	Ala	Thr		
		515					520					525					
Ala	Glu	Ala	Glu	Glu	Lys	Gln	Pro	Glu	Glu	Asp	Phe	Gln	Cys	Ile	Val		
	530					535					540						
Tyr	Phe	Trp	Gln	Gly	Arg	Glu	Ala	Ser	Asn	Met	Gly	Trp	Leu	Thr	Phe		
545					550					555					560		
Thr	Phe	Ser	Leu	Gln	Lys	Lys	Phe	Glu	Ser	Leu	Phe	Pro	Gly	Lys	Leu		
			565					570						575			
Glu	Val	Val	Arg	Met	Thr	Gln	Gln	Gln	Glu	Asn	Pro	Lys	Phe	Leu	Ser		
			580					585					590				
His	Phe	Lys	Arg	Lys	Phe	Ile	Ile	His	Arg	Gly	Lys	Arg	Lys	Ala	Val		
		595					600					605					
Gln	Gly	Ala	Gln	Gln	Pro	Ser	Leu	Tyr	Gln	Ile	Arg	Thr	Asn	Gly	Ser		
	610					615					620						
Ala	Leu	Cys	Thr	Arg	Cys	Ile	Gln	Ile	Asn	Thr	Asp	Ser	Ser	Leu	Leu		
625					630				635						640		
Asn	Ser	Glu	Phe	Cys	Phe	Ile	Leu	Lys	Val	Pro	Phe	Glu	Ser	Glu	Asp		
			645					650						655			

562

Asn Gln Gly Ile Val Tyr Ala Trp Val Gly Arg Ala Ser Asp Pro Asp  
                   660                  665                  670  
 Glu Ala Lys Leu Ala Glu Asp Ile Leu Asn Thr Met Phe Asp Thr Ser  
                   675                  680                  685  
 Tyr Ser Lys Gln Val Ile Asn Glu Gly Glu Glu Pro Glu Asn Phe Phe  
                   690                  695                  700  
 Trp Val Gly Ile Gly Ala Gln Lys Pro Tyr Asp Asp Asp Ala Glu Tyr  
                   705                  710                  715                  720  
 Met Lys His Thr Arg Leu Phe Arg Cys Ser Asn Glu Lys Gly Tyr Phe  
                   725                  730                  735  
 Ala Val Thr Glu Lys Cys Ser Asp Phe Cys Gln Asp Asp Leu Ala Asp  
                   740                  745                  750  
 Asp Asp Ile Met Leu Leu Asp Asn Gly Gln Glu Val Tyr Met Trp Val  
                   755                  760                  765  
 Gly Thr Gln Thr Ser Gln Val Glu Ile Lys Leu Ser Leu Lys Ala Cys  
                   770                  775                  780  
 Gln Val Tyr Ile Gln His Met Arg Ser Lys Glu His Glu Arg Pro Arg  
                   785                  790                  795                  800  
 Arg Leu Arg Leu Val Arg Lys Gly Asn Glu Gln His Ala Phe Thr Arg  
                   805                  810                  815  
 Cys Phe His Ala Trp Ser Ala Phe Cys Lys Ala Leu Ala  
                   820                  825

&lt;210&gt; 603

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 603

Thr Glu Pro Pro Leu Ser Cys Cys Leu Pro Ala Thr Tyr Pro Ala Asp  
   1                  5                  10                  15  
 Met Gly Thr Ala Gly Ala Met Gln Leu Cys Trp Val Ile Leu Gly Phe  
                   20                  25                  30  
 Leu Leu Phe Arg Gly His Asn Ser Gln Pro Thr Met Thr Gln Thr Ser  
                   35                  40                  45

563

Ser Ser Gln Gly Gly Leu Gly Gly Leu Ser Leu Thr Thr Glu Pro Val  
 50 55 60  
 Ser Ser Asn Pro Gly Tyr Ile Pro Ser Ser Glu Ala Asn Arg Pro Ser  
 65 70 75 80  
 His Leu Ser Ser Thr Gly Thr Pro Gly Ala Gly Val Pro Ser Ser Gly  
 85 90 95  
 Arg Asp Gly Gly Thr Ser Arg Asp Thr Phe Gln Thr Val Pro Pro Asn  
 100 105 110  
 Ser Thr Thr Met Ser Leu Ser Met Arg Glu Asp Ala Thr Ile Leu Pro  
 115 120 125  
 Ser Pro Thr Ser Glu Thr Val Leu Thr Val Ala Ala Phe Gly Val Ile  
 130 135 140  
 Ser Phe Ile Val Ile Leu Val Val Val Val Ile Ile Leu Val Gly Val  
 145 150 155 160  
 Val Ser Leu Arg Phe Lys Cys Arg Lys Ser Lys Glu Ser Glu Asp Pro  
 165 170 175  
 Gln Lys Pro Gly Ser Ser Gly Leu Ser Glu Ser Cys Ser Thr Ala Asn  
 180 185 190  
 Gly Glu Lys Asp Ser Ile Thr Leu Ile Ser Met Lys Asn Ile Asn Met  
 195 200 205  
 Asn Asn Gly Lys Gln Ser Leu Ser Ala Glu Lys Val Leu  
 210 215 220

&lt;210&gt; 604

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 604

Ser Cys Gly Leu Ser Leu Ile Lys Met Thr Thr Ser Gln Lys His Arg  
 1 5 10 15  
 Asp Phe Val Ala Glu Pro Met Gly Glu Lys Pro Val Gly Ser Leu Ala  
 20 25 30  
 Gly Ile Gly Glu Val Leu Gly Lys Lys Leu Glu Glu Arg Gly Phe Asp  
 35 40 45  
 Lys Ala Tyr Val Val Leu Gly Gln Phe Leu Val Leu Lys Lys Asp Glu

564

50                                      55                                      60  
 Asp Leu Phe Arg Glu Trp Leu Lys Asp Thr Cys Gly Ala Asn Ala Lys  
 65                                      70                                      75                                      80  
 Gln Ser Arg Asp Cys Phe Gly Cys Leu Arg Glu Trp Cys Asp Ala Phe  
                                     85                                      90                                      95

Leu

&lt;210&gt; 605

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 605

Gly Pro Arg Arg Leu Gly Ala Leu His Ala Ala Ala Thr Gly Ala Arg  
 1                                      5                                      10                                      15

Cys Leu Val Glu Leu Leu Val Ala His Gly Ala Asp Leu Asn Ala Lys  
                                     20                                      25                                      30

Ser Leu Met Asp Glu Thr Pro Leu Asp Val Cys Gly Asp Glu Glu Val  
                                     35                                      40                                      45

Arg Ala Lys Leu Leu Glu Leu Lys His Lys His Asp Ala Leu Leu Arg  
                                     50                                      55                                      60

Ala Gln Ser Arg Gln Arg Ser Leu Leu Arg Arg Arg Thr Ser Ser Ala  
 65                                      70                                      75                                      80

Gly Ser Arg Xaa Lys Val Val Arg Arg Val Ser Leu Thr Gln Arg Thr  
                                     85                                      90                                      95

Asp Leu Tyr Arg Lys Gln His Ala Gln Glu Ala Ile Val Trp Gln Gln  
                                     100                                      105                                      110

Pro Pro Pro Thr Ser Pro Glu Pro Pro Glu Asp Asn Asp Asp Arg Gln  
                                     115                                      120                                      125

Thr Gly Ala Glu Leu Arg Pro Pro Pro Pro Glu Glu Asp Asn Pro Glu  
                                     130                                      135                                      140

565

Val Val Arg Pro His Asn Gly Arg Val Gly Gly Ser Pro Val Arg His  
 145 150 155 160  
 Leu Tyr Ser Lys Arg Leu Asp Arg Ser Val Ser Tyr Gln Leu Ser Pro  
 165 170 175  
 Leu Asp Ser Thr Thr Pro His Thr Leu Val His Asp Lys Ala His His  
 180 185 190  
 Thr Leu Ala Asp Leu Lys Arg Gln Arg Ala Ala Ala Lys Leu Gln Arg  
 195 200 205  
 Pro Pro Pro Glu Gly Pro Glu Ser Pro Glu Thr Ala Glu Pro Gly Leu  
 210 215 220  
 Pro Gly Asp Thr Val Thr Pro Gln Pro Asp Cys Gly Phe Arg Ala Gly  
 225 230 235 240  
 Gly Asp Pro Pro Leu Leu Lys Leu Thr Ala Pro Ala Val Glu Ala Pro  
 245 250 255  
 Val Glu Arg Arg Pro Cys Cys Leu Leu Met  
 260 265

&lt;210&gt; 606

&lt;211&gt; 331

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (285)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 606

His Asp Ser Cys Phe Val Glu Met Gln Ala Gln Lys Val Met His Val  
 1 5 10 15

Ser Ser Ala Glu Leu Asn Tyr Ser Leu Pro Tyr Asp Ser Lys His Gln  
 20 25 30

Ile Arg Asn Ala Ser Asn Val Lys His His Asp Ser Ser Ala Leu Gly  
 35 40 45

566

Val	Tyr	Ser	Tyr	Ile	Pro	Leu	Val	Glu	Asn	Pro	Tyr	Phe	Ser	Ser	Trp
50						55					60				
Pro	Pro	Ser	Gly	Thr	Ser	Ser	Lys	Met	Ser	Leu	Asp	Leu	Pro	Glu	Lys
65					70					75					80
Gln	Asp	Gly	Thr	Val	Phe	Pro	Ser	Ser	Leu	Xaa	Pro	Thr	Ser	Ser	Thr
				85					90					95	
Ser	Leu	Phe	Ser	Tyr	Tyr	Asn	Ser	His	Asp	Ser	Leu	Ser	Leu	Asn	Ser
			100					105						110	
Pro	Thr	Asn	Ile	Ser	Ser	Leu	Leu	Asn	Gln	Glu	Ser	Ala	Val	Leu	Ala
		115					120						125		
Thr	Ala	Pro	Arg	Ile	Asp	Asp	Glu	Ile	Pro	Pro	Pro	Leu	Pro	Val	Arg
	130					135						140			
Thr	Pro	Glu	Ser	Phe	Ile	Val	Val	Glu	Glu	Ala	Gly	Glu	Phe	Ser	Pro
145					150					155					160
Asn	Val	Pro	Lys	Ser	Leu	Ser	Ser	Ala	Val	Lys	Val	Lys	Ile	Gly	Thr
			165						170					175	
Ser	Leu	Glu	Trp	Gly	Gly	Thr	Ser	Glu	Pro	Lys	Lys	Phe	Asp	Asp	Ser
			180					185						190	
Val	Ile	Leu	Arg	Pro	Ser	Lys	Ser	Val	Lys	Leu	Arg	Ser	Pro	Lys	Ser
		195					200						205		
Glu	Leu	His	Gln	Asp	Arg	Ser	Ser	Pro	Pro	Pro	Pro	Leu	Pro	Glu	Arg
	210					215						220			
Thr	Leu	Glu	Ser	Phe	Phe	Leu	Ala	Asp	Glu	Asp	Cys	Met	Gln	Ala	Gln
225					230					235					240
Ser	Ile	Glu	Thr	Tyr	Ser	Thr	Ser	Tyr	Pro	Asp	Thr	Met	Glu	Asn	Ser
				245					250					255	
Thr	Ser	Ser	Lys	Gln	Thr	Leu	Lys	Thr	Pro	Gly	Lys	Ser	Phe	Thr	Arg
			260					265						270	
Ser	Lys	Ser	Leu	Lys	Ile	Leu	Arg	Asn	Met	Lys	Lys	Xaa	Ile	Cys	Asn
		275					280						285		
Ser	Cys	Pro	Pro	Asn	Lys	Pro	Ala	Glu	Ser	Val	Gln	Ser	Asn	Asn	Ser
	290					295					300				
Ser	Ser	Phe	Leu	Asn	Phe	Gly	Phe	Ala	Asn	Arg	Phe	Ser	Lys	Pro	Lys
305					310					315					320

567

Gly Pro Arg Asn Pro Pro Pro Thr Trp Asn Ile  
325 330

<210> 607

<211> 192

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (78)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 607

Ala Ala Pro Ser Glu Pro Lys Ala Arg Gly Gly His Gly Gly Ala Leu  
1 5 10 15

Ala Arg Leu Glu Thr Met Pro Lys Leu Gln Gly Phe Glu Phe Trp Ser  
20 25 30

Arg Thr Leu Arg Gly Ala Arg His Val Val Ala Pro Met Val Asp Gln  
35 40 45

Ser Glu Leu Ala Trp Arg Leu Leu Ser Arg Arg His Gly Ala Gln Leu  
50 55 60

Cys Tyr Thr Pro Met Leu His Ala Gln Val Phe Val Arg Xaa Ala Asn  
65 70 75 80

Tyr Arg Lys Glu Asn Leu Tyr Cys Glu Val Cys Pro Glu Asp Arg Pro  
85 90 95

Leu Ile Val Gln Phe Cys Ala Asn Asp Pro Glu Val Phe Val Gln Ala  
100 105 110

Ala Leu Leu Ala Gln Asp Tyr Cys Asp Ala Ile Asp Leu Asn Leu Gly  
115 120 125

Cys Pro Gln Met Ile Ala Lys Arg Gly His Tyr Gly Ala Phe Leu Gln  
130 135 140

Asp Glu Trp Asp Leu Leu Gln Arg Met Ile Leu Leu Ala His Glu Lys  
145 150 155 160

Leu Ser Val Pro Val Thr Cys Lys Ile Arg Val Phe Pro Glu Ile Asp  
165 170 175

Lys Thr Val Ser Thr Pro Arg Cys Trp Arg Arg Pro Ala Ala Ser Cys  
180 185 190

&lt;210&gt; 608

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 608

His	Ile	Lys	Cys	Pro	His	Ser	Lys	Tyr	Gly	Cys	Thr	Phe	Ile	Gly	Asn
1				5					10					15	

Gln	Asp	Thr	Tyr	Glu	Thr	His	Leu	Glu	Thr	Cys	Arg	Phe	Glu	Gly	Leu
		20						25					30		

Lys	Glu	Phe	Leu	Gln	Gln	Thr	Asp	Asp	Arg	Phe	His	Glu	Met	His	Val
		35					40					45			

Ala	Leu	Ala	Gln	Lys	Asp	Gln	Glu	Ile	Ala	Phe	Leu	Arg	Ser	Met	Leu
	50					55					60				

Gly	Lys	Leu	Ser	Glu	Lys	Ile	Asp	Gln	Leu	Glu	Lys	Ser	Leu	Glu	Leu
65					70					75				80	

Lys	Phe	Asp	Val	Leu	Asp	Glu	Asn	Gln	Ser	Lys	Leu	Ser	Glu	Asp	Leu
			85					90						95	

Met	Glu	Phe	Arg	Arg	Asp	Ala	Ser	Met	Leu	Asn	Asp	Glu	Leu	Ser	His
		100						105				110			

Ile	Asn	Ala	Arg	Leu	Asn	Met	Gly	Ile	Leu	Gly	Ser	Tyr	Asp	Pro	Gln
	115						120					125			

Gln	Ile	Phe	Lys	Cys	Lys	Gly	Thr	Phe	Val	Gly	His	Gln	Gly	Pro	Val
	130					135					140				

Trp	Cys	Leu	Cys	Val	Tyr	Ser	Met	Gly	Asp	Leu	Leu	Phe	Ser	Gly	Ser
145					150					155				160	

Ser	Asp	Lys	Thr	Ile	Lys	Val	Trp	Asp	Thr	Cys	Thr	Thr	Tyr	Lys	Cys
			165					170						175	

Gln	Lys	Thr	Leu	Glu	Gly	His	Asp	Gly	Ile	Val	Leu	Ala	Leu	Cys	Ile
		180						185					190		

Gln	Gly	Cys	Lys	Leu	Tyr	Ser	Gly	Ser	Ala	Asp	Cys	Thr	Ile	Ile	Val
	195						200					205			



569

Trp Asp Ile Gln Asn Leu Gln Lys Val Asn Thr Ile Arg Ala His Asp  
 210 215 220  
 Asn Pro Val Cys Thr Leu Val Ser Ser His Asn Val Leu Phe Ser Gly  
 225 230 235 240  
 Ser Leu Lys Ala Ile Lys Val Trp Asp Ile Val Gly Thr Glu Leu Lys  
 245 250 255  
 Leu Lys Lys Glu Leu Thr Gly Leu Asn His Trp Val Arg Ala Leu Val  
 260 265 270  
 Ala Ala Gln Ser Tyr Leu Tyr Ser Gly Ser Tyr Gln Thr Ile Lys Ile  
 275 280 285  
 Trp Asp Ile Arg Thr Leu Asp Cys Ile His Val Leu Gln Thr Ser Gly  
 290 295 300  
 Gly Ser Val Tyr Ser Ile Ala Val Thr Asn His His Ile Val Cys Gly  
 305 310 315 320  
 Thr Tyr Glu Asn Leu Ile His Val Trp Asp Ile Glu Ser Lys Glu Gln  
 325 330 335  
 Val Arg Thr Leu Thr Gly His Val Gly Thr Val Tyr Ala Leu Ala Val  
 340 345 350  
 Ile Ser Thr Pro Asp Gln Thr Lys Val Phe Ser Ala Ser Tyr Asp Arg  
 355 360 365  
 Ser Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu  
 370 375 380  
 Leu Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg  
 385 390 395 400  
 Leu Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys  
 405 410 415

&lt;210&gt; 609

&lt;211&gt; 48

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

570

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 609

Phe	Ser	Glu	Leu	Asn	Gln	Cys	Phe	Tyr	Ile	Cys	Phe	Phe	Phe	Tyr	Ala
1				5					10					15	

Ser	Trp	Lys	Trp	Arg	Met	Lys	Ile	Gln	Leu	Xaa	Cys	Ser	Asn	Ser	Arg
			20					25					30		

Arg	Xaa	Val	Ser	Thr	Glu	Lys	Gly	Thr	Cys	Phe	Phe	Thr	Pro	Glu	Leu
		35					40						45		

&lt;210&gt; 610

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (37)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 610

571

Xaa Asp Xaa Gly Arg Pro Xaa Arg Thr Ala Glu Ser Xaa Phe Gly Ile  
 1 5 10 15  
 Asn Leu Lys Gly Pro Lys Ile Lys Gly Gly Ala Asp Val Ser Gly Gly  
 20 25 30  
 Val Ser Ala Pro Xaa Ile Ser Leu Gly Glu Gly His Leu Ser Val Lys  
 35 40 45  
 Gly Ser Gly Gly Glu Trp Lys Gly Pro Gln Val Ser Ser Ala Leu Asn  
 50 55 60  
 Leu Asp Thr Ser Lys Phe Ala Gly Gly Leu His Phe Ser Gly Pro Lys  
 65 70 75 80  
 Val Glu Gly Gly Val Lys Gly Gly Gln Ile Gly Leu Gln Ala Pro Gly  
 85 90 95  
 Leu Ser Val Ser Gly Pro Gln Gly His Leu Glu Ser Gly Ser Gly Lys  
 100 105 110  
 Val Thr Phe Pro Lys Met Lys Ile Pro Lys Phe Thr Phe Ser Gly Arg  
 115 120 125  
 Glu Leu Val Gly Arg Glu Met Gly Val Asp Val His Phe Pro Lys Ala  
 130 135 140  
 Glu Ala Ser Ile Gln Ala Gly Ala Gly Asp Gly Glu Trp Glu Glu Ser  
 145 150 155 160  
 Glu Val Lys Leu Lys Lys Ser Lys Ile Lys Met Pro Lys Phe Asn Phe  
 165 170 175  
 Ser Lys Pro Lys Gly Lys Gly Gly Val Thr Gly Ser Pro Glu Ala Ser  
 180 185 190  
 Ile Ser Gly Ser Lys Gly Asp Leu Lys Ser Ser Lys Ala Ser Leu Gly  
 195 200 205  
 Ser Leu Glu Gly Glu Ala Glu Ala Glu Ala Ser Ser Pro Lys Gly Lys  
 210 215 220  
 Phe Ser Leu Phe Lys Ser Lys Lys Pro Arg His Arg Cys Lys Phe Ile  
 225 230 235 240  
 Gln

&lt;210&gt; 611

572

&lt;211&gt; 77

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 611

His Tyr Arg Arg Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly Ser  
 1 5 10 15

Thr His Ala Ser Gly Val Ala Asp Gly Gly Gln Val Phe Leu Phe Pro  
 20 25 30

Glu Thr Gly Ser Val Gln Thr Ala Asn Ala His Arg Trp Pro Arg Gly  
 35 40 45

Gly Gly Ser Gln Gly Val Trp Val Phe Leu Gly Phe Phe Ser Val Val  
 50 55 60

Ser Phe Thr Gln Gly Trp Trp Ser Gln Pro Val Trp Cys  
 65 70 75

&lt;210&gt; 612

&lt;211&gt; 137

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 612

Leu Gln Val Pro Val Arg Asn Ser Gly Ser Pro Thr Arg Gln Ala Ala  
 1 5 10 15

Ala Met Thr Phe Cys Arg Leu Leu Asn Arg Cys Gly Glu Ala Ala Arg  
 20 25 30

Ser Leu Pro Leu Gly Ala Arg Cys Phe Gly Val Arg Val Ser Pro Thr  
 35 40 45

Gly Glu Lys Val Thr His Thr Gly Gln Val Tyr Asp Asp Lys Asp Tyr  
 50 55 60

Arg Arg Ile Arg Phe Val Gly Arg Gln Lys Glu Val Asn Glu Asn Phe  
 65 70 75 80

Ala Ile Asp Leu Ile Ala Glu Gln Pro Val Ser Glu Val Glu Thr Arg  
 85 90 95

Val Ile Ala Cys Asp Gly Gly Gly Gly Ala Leu Gly His Pro Lys Val  
 100 105 110

Tyr Ile Asn Leu Asp Lys Glu Thr Lys Thr Gly Thr Cys Gly Tyr Cys  
 115 120 125

Gly Leu Gln Phe Arg Gln His His His  
130 135

<210> 613  
<211> 122  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (50)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (75)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (80)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (85)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (98)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (105)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (111)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (116)  
<223> Xaa equals any of the naturally occurring L-amino acids

574

&lt;400&gt; 613

```

Tyr Ser Thr Asp Asn Asn Asn Trp Tyr Ser Ile Phe Tyr Leu His
 1             5             10             15

Ser Ser Phe Leu Gly Glu Asn Ala Glu Lys Leu Leu Gln Phe Lys Arg
          20             25             30

Trp Phe Trp Ser Ile Val Glu Lys Met Ser Met Thr Glu Arg Gln Asp
          35             40             45

Leu Xaa Tyr Phe Trp Thr Ser Ser Pro Ser Leu Pro Ala Ser Glu Glu
 50             55             60

Gly Phe Gln Pro Met Pro Ser Ile Thr Ile Xaa Pro Pro Asp Asp Xaa
 65             70             75             80

His Leu Pro Thr Xaa Lys Tyr Leu His Phe Leu Asp Phe Thr Phe Pro
          85             90             95

Leu Xaa Ser Phe Lys Gln Asp Ser Xaa Asn Arg Lys Leu Val Xaa Ser
          100             105             110

Pro Phe Arg Xaa Gln Lys Phe Trp Val Leu
          115             120

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&lt;210&gt; 614

&lt;211&gt; 62

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 614

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Phe Phe Ile Gly Leu Glu Thr Arg Ala Asn Ser Ile Met Phe Ser Lys
 1             5             10             15

Glu Thr Asp Leu Ser Cys Trp Ile Arg Gly Thr Asn Pro Thr Tyr Met
          20             25             30

Ile Phe Phe Leu Phe Leu Ser Cys Ser Tyr Gly Thr Val Leu Phe Gly
          35             40             45

Thr Phe Ala Thr Arg Asp Asn Thr Thr Phe Leu Thr Leu Ile
          50             55             60

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&lt;210&gt; 615

&lt;211&gt; 159

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

575

&lt;400&gt; 615

Val Gly Leu Pro Asn Met Ala Gln Ser Ile Asn Ile Thr Glu Leu Asn  
 1 5 10 15

Leu Pro Gln Leu Glu Met Leu Lys Asn Gln Leu Asp Gln Glu Val Glu  
 20 25 30

Phe Leu Ser Thr Ser Ile Ala Gln Leu Lys Val Val Gln Thr Lys Tyr  
 35 40 45

Val Glu Ala Lys Asp Cys Leu Asn Val Leu Asn Lys Ser Asn Glu Gly  
 50 55 60

Lys Glu Leu Leu Val Pro Leu Thr Ser Ser Met Tyr Val Pro Gly Lys  
 65 70 75 80

Leu His Asp Val Glu His Val Leu Ile Asp Val Gly Thr Gly Tyr Tyr  
 85 90 95

Val Glu Lys Thr Ala Glu Asp Ala Lys Asp Phe Phe Lys Arg Lys Ile  
 100 105 110

Asp Phe Leu Thr Lys Gln Met Glu Lys Ile Gln Pro Ala Leu Gln Glu  
 115 120 125

Lys His Ala Met Lys Gln Ala Val Met Glu Met Met Ser Gln Lys Ile  
 130 135 140

Gln Gln Leu Thr Ala Leu Gly Ala Ala Gln Ala Thr Ala Lys Ala  
 145 150 155

&lt;210&gt; 616

&lt;211&gt; 93

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 616

Lys Val Ala Cys Arg Tyr Arg Xaa Gly Ile Pro Gly Arg Pro Thr Arg  
 1 5 10 15

Pro Gly Thr Gln Asp Ala Glu Gly Lys Lys Ala Lys Gly Lys Lys Val  
 20 25 30

576

Ala Pro Ala Pro Ala Val Val Lys Lys Gln Glu Ala Lys Lys Val Val  
                   35                                  40                                  45

Asn Pro Leu Phe Glu Lys Arg Pro Lys Asn Phe Gly Ile Gly Gln Asp  
           50                                  55                                  60

Ile Gln Pro Lys Arg Asp Leu Thr Arg Phe Val Lys Trp Pro Arg Tyr  
       65                                  70                                  75                                  80

Ile Arg Leu Gln Arg His Ala Arg Ser Ser Thr Ser Gly  
                                   85                                  90

&lt;210&gt; 617

&lt;211&gt; 362

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (307)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 617

Ser Arg Val Asp Pro Arg Val Arg Arg Gly Val Pro Tyr Gln Leu Gly  
       1                                  5                                  10                                  15

Pro His Gly His Arg Gln Gly Leu Glu Ala Pro Leu Tyr Leu Thr Pro  
                   20                                  25                                  30

Glu Gly Trp Ser Leu Phe Leu Gln Arg Tyr Tyr Gln Val Val His Glu  
           35                                  40                                  45

Gly Ala Glu Leu Arg His Leu Asp Thr Gln Val Gln Arg Cys Glu Asp  
       50                                  55                                  60

Ile Leu Gln Gln Leu Gln Ala Val Val Pro Gln Ile Asp Met Glu Gly  
       65                                  70                                  75                                  80

Asp Arg Asn Ile Trp Ile Val Lys Pro Gly Ala Lys Ser Arg Gly Arg  
                                   85                                  90                                  95

Gly Ile Met Cys Met Asp His Leu Glu Glu Met Leu Lys Leu Val Asn  
           100                                  105                                  110

Gly Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr  
           115                                  120                                  125

Ile Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln  
       130                                  135                                  140



577

Trp Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg  
 145 150 155 160  
 Asp Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu  
 165 170 175  
 Asp Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu  
 180 185 190  
 Asn Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser  
 195 200 205  
 Ser Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala  
 210 215 220  
 Trp Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala  
 225 230 235 240  
 Leu Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu  
 245 250 255  
 Leu Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu  
 260 265 270  
 Ile Glu Ile Asn Ala Ser Pro Thr Met Ala Pro Ser Thr Ala Val Thr  
 275 280 285  
 Ala Arg Leu Cys Ala Gly Val Gln Ala Asp Thr Leu Arg Val Val Ile  
 290 295 300  
 Asp Arg Xaa Leu Asp Arg Asn Cys Asp Thr Gly Ala Phe Glu Leu Ile  
 305 310 315 320  
 Tyr Lys Gln Pro Ala Val Glu Val Pro Gln Tyr Val Gly Ile Arg Leu  
 325 330 335  
 Leu Val Glu Gly Phe Thr Ile Lys Lys Pro Met Ala Met Cys His Arg  
 340 345 350  
 Arg Met Gly Val Arg Gln Gln Ser Leu Cys  
 355 360

&lt;210&gt; 618

&lt;211&gt; 328

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 618

578

Ile	Arg	Met	Arg	Glu	Trp	Trp	Val	Gln	Val	Gly	Leu	Leu	Ala	Val	Pro	1	5	10	15
Leu	Leu	Ala	Ala	Tyr	Leu	His	Ile	Pro	Pro	Pro	Gln	Leu	Ser	Pro	Ala	20	25	30	
Leu	His	Ser	Trp	Lys	Ser	Ser	Gly	Lys	Phe	Phe	Thr	Tyr	Lys	Gly	Leu	35	40	45	
Arg	Ile	Phe	Tyr	Gln	Asp	Ser	Val	Gly	Val	Val	Gly	Ser	Pro	Glu	Ile	50	55	60	
Val	Val	Leu	Leu	His	Gly	Phe	Pro	Thr	Ser	Ser	Tyr	Asp	Trp	Tyr	Lys	65	70	75	80
Ile	Trp	Glu	Gly	Leu	Thr	Leu	Arg	Phe	His	Arg	Val	Ile	Ala	Leu	Asp	85	90	95	
Phe	Leu	Gly	Phe	Gly	Phe	Ser	Asp	Lys	Pro	Arg	Pro	His	His	Tyr	Ser	100	105	110	
Ile	Phe	Glu	Gln	Ala	Ser	Ile	Val	Glu	Ala	Leu	Leu	Arg	His	Leu	Gly	115	120	125	
Leu	Gln	Asn	Arg	Arg	Ile	Asn	Leu	Leu	Ser	His	Asp	Tyr	Gly	Asp	Ile	130	135	140	
Val	Ala	Gln	Glu	Leu	Leu	Tyr	Arg	Tyr	Lys	Gln	Asn	Arg	Ser	Gly	Arg	145	150	155	160
Leu	Thr	Ile	Lys	Ser	Leu	Cys	Leu	Ser	Asn	Gly	Gly	Ile	Phe	Pro	Glu	165	170	175	
Thr	His	Arg	Pro	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Lys	Asp	Gly	Gly	Val	180	185	190	
Leu	Ser	Pro	Ile	Leu	Thr	Arg	Leu	Met	Asn	Phe	Phe	Val	Phe	Ser	Arg	195	200	205	
Gly	Leu	Thr	Pro	Val	Phe	Gly	Pro	Tyr	Thr	Arg	Pro	Ser	Glu	Ser	Glu	210	215	220	
Leu	Trp	Asp	Met	Trp	Ala	Gly	Ile	Arg	Asn	Asn	Asp	Gly	Asn	Leu	Val	225	230	235	240
Ile	Asp	Ser	Leu	Leu	Gln	Tyr	Ile	Asn	Gln	Arg	Lys	Lys	Phe	Arg	Arg	245	250	255	
Arg	Trp	Val	Gly	Ala	Leu	Ala	Ser	Val	Thr	Ile	Pro	Ile	His	Phe	Ile	260	265	270	

579

Tyr Gly Pro Leu Asp Pro Val Asn Pro Tyr Pro Glu Phe Leu Glu Leu  
 275 280 285  
 Tyr Arg Lys Thr Leu Pro Arg Ser Thr Val Ser Ile Leu Asp Asp His  
 290 295 300  
 Ile Ser His Tyr Pro Gln Leu Glu Asp Pro Met Gly Phe Leu Asn Ala  
 305 310 315 320  
 Tyr Met Gly Phe Ile Asn Ser Phe  
 325

<210> 619  
 <211> 271  
 <212> PRT  
 <213> Homo sapiens

<400> 619  
 Asn Met Asp Pro Pro Gly Leu Gln Gly Val Gln Gly Thr Val Ala Ala  
 1 5 10 15  
 Cys Gly Ala Cys Tyr Trp Leu Leu Gly Leu Met Ala Val Arg Ala Ser  
 20 25 30  
 Phe Glu Asn Asn Cys Glu Ile Gly Cys Phe Ala Lys Leu Thr Asn Thr  
 35 40 45  
 Tyr Cys Leu Val Ala Ile Gly Gly Ser Glu Asn Phe Tyr Ser Val Phe  
 50 55 60  
 Glu Gly Glu Leu Ser Asp Thr Ile Pro Val Val His Ala Ser Ile Ala  
 65 70 75 80  
 Gly Cys Arg Ile Ile Gly Arg Met Cys Val Gly Asn Arg His Gly Leu  
 85 90 95  
 Leu Val Pro Asn Asn Thr Thr Asp Gln Glu Leu Gln His Ile Arg Asn  
 100 105 110  
 Ser Leu Pro Asp Thr Val Gln Ile Arg Arg Val Glu Glu Arg Leu Ser  
 115 120 125  
 Ala Leu Gly Asn Val Thr Thr Cys Asn Asp Tyr Val Ala Leu Val His  
 130 135 140  
 Pro Asp Leu Asp Arg Glu Thr Glu Glu Ile Leu Ala Asp Val Leu Lys  
 145 150 155 160  
 Val Glu Val Phe Arg Gln Thr Val Ala Asp Gln Val Leu Val Gly Ser

580

				165					170					175		
Tyr	Cys	Val	Phe	Ser	Asn	Gln	Gly	Gly	Leu	Val	His	Pro	Lys	Thr	Ser	
			180					185					190			
Ile	Glu	Asp	Gln	Asp	Glu	Leu	Ser	Ser	Leu	Leu	Gln	Val	Pro	Leu	Val	
		195					200					205				
Ala	Gly	Thr	Val	Asn	Arg	Gly	Ser	Glu	Val	Ile	Ala	Ala	Gly	Met	Val	
	210					215					220					
Val	Asn	Asp	Trp	Cys	Ala	Phe	Cys	Gly	Leu	Asp	Thr	Thr	Ser	Thr	Glu	
225					230					235					240	
Leu	Ser	Val	Val	Glu	Ser	Val	Phe	Lys	Leu	Asn	Glu	Ala	Gln	Pro	Ser	
				245					250					255		
Thr	Ile	Ala	Thr	Ser	Met	Arg	Asp	Ser	Leu	Ile	Asp	Ser	Leu	Thr		
			260					265					270			

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<210> 620
<211> 88
<212> PRT
<213> Homo sapiens
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```

<400> 620
Gly Ser Ala Ala Met Lys Val Lys Ile Lys Cys Trp Asn Gly Val Ala
  1             5             10             15
Thr Trp Leu Trp Val Ala Asn Asp Glu Asn Cys Gly Ile Cys Arg Met
      20             25             30
Ala Phe Asn Gly Cys Cys Pro Asp Cys Lys Val Pro Gly Asp Asp Cys
      35             40             45
Pro Leu Val Trp Gly Gln Cys Ser His Cys Phe His Met His Cys Ile
      50             55             60
Leu Lys Trp Leu His Ala Gln Gln Val Gln Gln His Cys Pro Met Cys
      65             70             75             80
Arg Gln Glu Trp Lys Phe Lys Glu
      85

```

```
<210> 621
<211> 46
<212> PRT
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581

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 621

Ala	Gly	Thr	Ser	Arg	Ser	Glu	Gly	Lys	Arg	Ser	Ser	Val	Leu	Thr	Arg
1					5				10					15	

Thr	Glu	Phe	Gln	Ile	Glu	Met	Phe	Gln	Thr	Ile	Glu	Gly	Glu	Lys	Trp
			20					25					30		

Pro	Gly	Xaa	Ser	Ile	Asn	Leu	Ser	Xaa	Phe	His	Gly	Cys	Phe
		35					40					45	

&lt;210&gt; 622

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (35)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 622

Gly	Arg	Pro	Thr	Arg	Pro	Arg	Gly	Arg	Gly	Arg	Ser	Ser	Ala	Cys	Leu
1					5				10					15	

Leu	Leu	Glu	Gly	Asp	Gly	Pro	Ala	Arg	Leu	Trp	Ala	Pro	Thr	Ser	Pro
			20					25					30		

Gly	Val	Xaa	Xaa	Glu	Arg	Phe	Ala	Glu	Glu	Arg	Gly	Ser	Gly	Arg	Ala
		35					40					45			

Leu	Asn	Ala	Gly	Pro	Lys	His	Pro	Gly	Ser	Leu	His	Ser	Pro	Arg	Pro
	50					55					60				

582

Gln Thr Leu Thr Lys Thr Trp Ile Cys Ser Arg Phe Ser Cys Ser Arg  
65 70 75 80  
Ser Ser Arg Ser Cys Pro Arg Leu Leu Arg Leu Arg Ala Glu Lys Lys  
85 90 95  
Val Cys Gln Ala Trp Thr Gln  
100

<210> 623  
<211> 103  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (60)  
<223> Xaa equals any of the naturally occurring-L-amino acids

<400> 623  
Gly Arg Pro Thr Arg Pro Thr Ser Ser Arg Ser Arg Ala Ala Arg Pro  
1 5 10 15  
Phe Phe Phe Phe Phe Phe Phe Trp Phe Pro Glu Phe Gly Phe Ile Leu  
20 25 30  
Gln Tyr Arg Asn His Leu Glu Pro Ser Glu Thr Asp Ile Pro Glu Ala  
35 40 45  
Glu Ala Leu Ser Asn Gln Tyr Cys Val Ala Leu Xaa Pro Leu Arg Lys  
50 55 60  
Pro His Leu Gly Tyr Lys Arg Ser Phe Tyr Val Tyr Pro Leu Tyr His  
65 70 75 80  
Gly Phe Leu Ser Pro Leu Leu Leu Pro Ile Leu Pro Gly Glu Asn Thr  
85 90 95  
Ala Gln Arg Leu Pro Ser Glu  
100

<210> 624  
<211> 305  
<212> PRT  
<213> Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (116)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (219)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 624

Thr	Gln	Asp	Leu	Trp	Met	Ser	Cys	Pro	Val	Gln	Thr	Met	Asp	Pro	Glu
1				5					10					15	

Val	Thr	Leu	Leu	Leu	Gln	Cys	Pro	Gly	Gly	Gly	Leu	Pro	Gln	Glu	Gln
		20						25					30		

Ile	Gln	Ala	Glu	Leu	Ser	Pro	Ala	His	Asp	Arg	Arg	Pro	Leu	Pro	Gly
		35					40					45			

Gly	Asp	Glu	Ala	Ile	Thr	Ala	Ile	Trp	Glu	Thr	Arg	Leu	Lys	Ala	Gln
	50					55					60				

Pro	Trp	Leu	Phe	Asp	Ala	Pro	Lys	Phe	Arg	Leu	His	Ser	Ala	Thr	Leu
65					70					75					80

Ala	Pro	Ile	Gly	Ser	Arg	Gly	Pro	Gln	Leu	Leu	Leu	Arg	Leu	Gly	Leu
				85				90						95	

Thr	Ser	Tyr	Arg	Asp	Phe	Leu	Gly	Thr	Asn	Trp	Ser	Ser	Ser	Ala	Ala
			100					105					110		

Trp	Leu	Arg	Xaa	Xaa	Gly	Ala	Thr	Asp	Trp	Gly	Asp	Thr	Gln	Ala	Tyr
	115					120						125			

Leu	Ala	Asp	Pro	Leu	Gly	Val	Gly	Ala	Ala	Leu	Ala	Thr	Ala	Asp	Asp
	130					135						140			

Phe	Leu	Val	Phe	Leu	Arg	Arg	Ser	Arg	Gln	Val	Ala	Glu	Ala	Pro	Gly
145					150					155					160

Leu	Val	Asp	Val	Pro	Gly	Gly	His	Pro	Glu	Pro	Gln	Ala	Leu	Cys	Pro
				165					170					175	

Gly	Gly	Ser	Pro	Gln	His	Gln	Asp	Leu	Ala	Gly	Gln	Leu	Val	Val	His
			180					185					190		

584

Glu Leu Phe Ser Ser Val Leu Gln Glu Ile Cys Asp Glu Val Asn Leu  
 195 200 205  
 Pro Leu Leu Thr Leu Ser Gln Pro Leu Leu Xaa Gly Ile Ala Arg Asn  
 210 215 220  
 Glu Thr Ser Ala Gly Arg Ala Ser Ala Glu Phe Tyr Val Gln Cys Ser  
 225 230 235 240  
 Leu Thr Ser Glu Gln Val Arg Lys His Tyr Leu Ser Gly Gly Pro Glu  
 245 250 255  
 Ala His Glu Ser Thr Gly Ile Phe Phe Val Glu Thr Gln Asn Val Arg  
 260 265 270  
 Arg Leu Pro Glu Thr Glu Met Trp Ala Glu Leu Cys Pro Ser Pro Lys  
 275 280 285  
 Ala Pro Ser Ser Ser Thr Thr Gly Phe Arg Glu Val Pro Leu Glu Arg  
 290 295 300  
 Pro  
 305

<210> 625  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 625  
 Ser Ala Met Lys Ala Ser Gly Thr Leu Arg Glu Tyr Lys Val Val Gly  
 1 5 10 15  
 Arg Cys Leu Pro Thr Pro Lys Cys Arg Thr Pro Pro Leu Tyr Arg Met  
 20 25 30  
 Arg Ile Phe Ala Pro Asn His Val Val Ala Lys Ser Arg Phe Trp Tyr  
 35 40 45  
 Phe Val Ser Gln Leu Lys Lys Met Lys Lys Ser Ser Gly Glu Ile Val  
 50 55 60  
 Tyr Cys Gly Gln Val Phe Glu Lys Ser Pro Leu Arg Val Lys Asn Phe  
 65 70 75 80  
 Gly Ile Trp Leu Arg Tyr Asp Ser Arg Ser Gly Thr His Asn Met Tyr  
 85 90 95



585

Arg Gly Val Pro Gly Thr  
100

&lt;210&gt; 626

&lt;211&gt; 59

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (36)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 626

Ala Leu Trp Val Lys Ala Trp Arg Gln Glu Ser Glu Gly Gln Phe Gln  
1 5 10 15

Glu Thr Gln Phe Ile Asn Phe His Gln His Leu Pro Gly Pro Cys Leu  
20 25 30

Gly Thr Glu Xaa Pro Ser Pro Glu Ser Gly His His Phe Pro Phe Gln  
35 40 45

Ser Ile Glu Cys Arg Gly Ile Gln Gly Met Gly  
50 55

&lt;210&gt; 627

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (93)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 627

Arg Leu Val Val Thr Glu Glu Asp Gly Gly Ala Arg Pro Glu Ala Leu  
1 5 10 15

Gly Lys Ile Ala Pro Arg Thr Pro Ala Glu Leu Gly Ala Arg Ala Asp  
20 25 30

Gln Glu Leu Val Thr Ala Leu Met Cys Asp Leu Arg Arg Pro Ala Ala  
35 40 45

Gly Gly Met Met Asp Leu Ala Tyr Val Cys Glu Trp Glu Lys Trp Ser

586

50		55		60
Lys Ser Thr His Cys Pro Ser Val Pro Leu Ala Cys Ala Trp Ser Cys				
65		70		75
				80
Arg Asn Leu Ile Ala Phe Thr Met Asp Leu Arg Thr Xaa Asp Gln Asp				
	85		90	95
Leu Thr Arg Met Ile His Ile Leu Asp Thr Glu His Pro Trp Asp Leu				
	100		105	110
His Ser Ile Pro Ser Glu His His Glu Ala Ile Thr Cys Leu Glu Trp				
	115		120	125
Asp Gln Ser Gly Ser Arg Leu Leu Ser Ala Asp Ala Asp Gly Gln Ile				
	130		135	140
Lys Cys Trp Ser Met Ala Asp His Leu Ala Asn Ser Trp Glu Ser Ser				
	145		150	155
				160
Val Gly Ser Leu Val Glu Gly Asp Pro Ile Val Ala Leu Ser Trp Leu				
	165		170	175
His Asn Gly Val Lys Leu Ala Leu His Val Glu Lys Ser Gly Ala Ser				
	180		185	190
Ser Phe Gly Glu Lys Phe Ser Arg Val Lys Phe Ser Pro Val Leu Thr				
	195		200	205
Leu Phe Gly Gly Lys Pro Trp Arg Ala Gly Ser Arg				
	210		215	220

&lt;210&gt; 628

&lt;211&gt; 119

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (115)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (117)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 628

Pro Ala Ser Val Glu Val Tyr His Asp Ser Leu Cys Arg Lys Ile Trp

587

```

      1             5             10             15
Arg Glu Asp Asp Lys Trp His Val Ile Phe Arg Ala Asp Gly Trp Glu
      20             25             30
Gln His Ile Thr Ala Arg Tyr Leu Val Gly Ala Asp Gly Ala Asn Ser
      35             40             45
Met Val Arg Arg His Leu Tyr Pro Asp His Gln Ile Arg Lys Tyr Val
      50             55             60
Ala Ile Gln Gln Trp Phe Ala Glu Lys His Pro Val Pro Phe Tyr Ser
      65             70             75             80
Cys Ile Phe Asp Asn Ser Ile Thr Asn Cys Tyr Ser Trp Ser Ile Ser
      85             90             95
Lys Asp Gly Tyr Phe Ile Phe Gly Gly Ala Tyr Pro Met Glu Arg Arg
      100            105            110
Ser Asp Xaa Phe Xaa Asp Ala
      115

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&lt;210&gt; 629

&lt;211&gt; 39

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 629

```

Phe Gly Glu Pro Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr
  1             5             10             15
Ser Ile Val Ser Met Leu Thr Thr Cys Arg Tyr Ser Leu Xaa Xaa His
      20             25             30
Met Lys Lys Val Ser Ser Cys
      35

```

588

&lt;210&gt; 630

&lt;211&gt; 267

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 630

Ser Ala Ala Leu Pro Gln Pro Thr Pro Pro Leu Thr Leu Pro Gln Ser  
 1 5 10 15

Met Val Asn Thr Lys Pro Glu Lys Thr Glu Glu Asp Ser Glu Glu Val  
 20 25 30

Arg Glu Gln Lys His Lys Thr Phe Val Glu Lys Tyr Glu Lys Gln Ile  
 35 40 45

Lys His Phe Gly Met Leu Arg Arg Trp Asp Asp Ser Gln Lys Tyr Leu  
 50 55 60

Ser Asp Asn Val His Leu Val Cys Glu Glu Thr Ala Asn Tyr Leu Val  
 65 70 75 80

Ile Trp Cys Ile Asp Leu Glu Val Glu Glu Lys Cys Ala Leu Met Glu  
 85 90 95

Gln Val Ala His Gln Thr Ile Val Met Gln Phe Ile Leu Glu Leu Ala  
 100 105 110

Lys Ser Leu Lys Val Asp Pro Arg Ala Cys Phe Arg Gln Phe Phe Thr  
 115 120 125

Lys Ile Lys Thr Ala Asp Arg Gln Tyr Met Glu Gly Phe Asn Asp Glu  
 130 135 140

Leu Glu Ala Phe Lys Glu Arg Val Arg Gly Arg Ala Lys Leu Arg Ile  
 145 150 155 160

Glu Lys Ala Met Lys Glu Tyr Glu Glu Glu Glu Arg Lys Lys Arg Leu  
 165 170 175

Gly Pro Gly Gly Leu Asp Pro Val Glu Val Tyr Glu Ser Leu Pro Glu  
 180 185 190

Glu Leu Gln Lys Cys Phe Asp Val Lys Asp Val Gln Met Leu Gln Asp  
 195 200 205

Ala Ile Ser Lys Met Asp Pro Thr Asp Ala Lys Tyr His Met Gln Arg  
 210 215 220

Cys Ile Asp Ser Gly Leu Trp Val Pro Asn Ser Lys Ala Ser Glu Ala  
 225 230 235 240

589

Lys Glu Gly Glu Glu Ala Gly Pro Gly Asp Pro Leu Leu Glu Ala Val  
                                   245                                  250                                  255

Pro Lys Thr Gly Asp Glu Lys Asp Val Ser Val  
                                   260                                  265

&lt;210&gt; 631

&lt;211&gt; 207

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (164)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 631

Pro Thr Gly Thr Gly Ser Gly Val Pro Gly Leu Gly Arg Asn Gly Gly  
   1                                  5                                  10                                  15

Arg Glu Gly Ala Pro Gly Thr Met Gly Leu Leu Thr Ile Leu Lys Lys  
                                   20                                  25                                  30

Met Lys Gln Lys Glu Arg Glu Leu Arg Leu Leu Met Leu Gly Leu Asp  
                                   35                                  40                                  45

Asn Ala Gly Lys Thr Thr Ile Leu Lys Lys Phe Asn Gly Glu Asp Ile  
                                   50                                  55                                  60

Asp Thr Ile Ser Pro Thr Leu Gly Phe Asn Ile Lys Thr Leu Glu His  
   65                                  70                                  75                                  80

Arg Gly Phe Lys Leu Asn Ile Trp Asp Val Gly Gly Gln Lys Ser Leu  
                                   85                                  90                                  95

Arg Ser Tyr Trp Arg Asn Tyr Phe Glu Ser Thr Asp Gly Leu Ile Trp  
                                   100                                  105                                  110

Val Val Asp Ser Ala Asp Arg Gln Arg Met Gln Asp Cys Gln Arg Glu  
                                   115                                  120                                  125

Leu Gln Ser Leu Leu Val Glu Glu Arg Leu Ala Gly Ala Thr Leu Leu  
   130                                  135                                  140

Ile Phe Ala Asn Lys Gln Asp Leu Pro Gly Ala Leu Ser Ser Asn Ala  
   145                                  150                                  155                                  160

Ile Arg Glu Xaa Leu Glu Leu Asp Ser Ile Arg Ser His His Trp Cys

590

	165		170		175										
Ile	Gln	Gly	Cys	Ser	Ala	Val	Thr	Gly	Glu	Asn	Leu	Leu	Pro	Gly	Ile
			180					185					190		
Asp	Trp	Leu	Leu	Asp	Asp	Ile	Ser	Ser	Arg	Ile	Phe	Thr	Ala	Asp	
		195					200					205			

&lt;210&gt; 632

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 632

Lys	Asn	Asn	Lys	Lys	Asp	Gln	Gln	Asn	Gly	Ile	Cys	Ser	His	Thr	Met
1				5					10					15	

Ile	Lys	Thr	Tyr	Leu	Arg	Thr	Ala	Leu	Phe	Met	Gly	Lys	Arg	Ser	Leu
			20					25					30		

Ile	Asp	Ser	Gln	Phe	His	Arg	Leu	Tyr	Arg	Arg	His	Gly	Leu	Gly	Arg
		35					40					45			

Pro	Gln	Gly	Asn	Leu	Xaa	Ser	Met	Val	Glu	Gly	Xaa	Xaa	Gly	Ser	Met
	50					55					60				

His	His	Leu	His	Trp	Pro	Glu	Gln	Xaa	Glu	Arg	Glu	Gln	Ile	Trp	
65					70					75					

591

<210> 633  
 <211> 293  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (249)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (282)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 633

Trp Ser Pro Ser Pro Pro Ala Thr Pro Glu Gln Gly Leu Ser Ala Phe  
 1 5 10 15

Tyr Leu Ser Tyr Phe Asp Met Leu Tyr Pro Glu Asp Ser Ser Trp Ala  
 20 25 30

Ala Lys Ala Pro Gly Ala Ser Ser Arg Glu Glu Pro Pro Glu Glu Pro  
 35 40 45

Glu Gln Cys Pro Val Ile Asp Ser Gln Ala Pro Ala Gly Ser Leu Asp  
 50 55 60

Leu Val Pro Gly Gly Leu Thr Leu Glu Glu His Ser Leu Glu Gln Val  
 65 70 75 80

Gln Ser Met Val Val Gly Glu Val Leu Lys Asp Ile Glu Thr Ala Cys  
 85 90 95

Lys Leu Leu Asn Ile Thr Ala Asp Pro Met Asp Trp Ser Pro Ser Asn  
 100 105 110

Val Gln Lys Trp Leu Leu Trp Thr Glu His Gln Tyr Arg Leu Pro Pro  
 115 120 125

Met Gly Lys Ala Phe Gln Glu Leu Ala Gly Lys Glu Leu Cys Ala Met  
 130 135 140

Ser Glu Glu Gln Phe Arg Gln Arg Ser Pro Leu Gly Gly Asp Val Leu  
 145 150 155 160

His Ala His Leu Asp Ile Trp Lys Ser Ala Ala Trp Met Lys Glu Arg  
 165 170 175

592

Thr Ser Pro Gly Ala Ile His Tyr Cys Ala Ser Thr Ser Glu Glu Ser  
 180 185 190  
 Trp Thr Asp Ser Glu Val Asp Ser Ser Cys Ser Gly Gln Pro Ile His  
 195 200 205  
 Leu Trp Gln Phe Leu Lys Glu Leu Leu Leu Lys Pro His Ser Tyr Gly  
 210 215 220  
 Arg Phe Ile Arg Trp Leu Asn Lys Glu Lys Gly Ile Phe Lys Ile Glu  
 225 230 235 240  
 Asp Ser Ala Gln Val Ala Arg Leu Xaa Gly Ile Arg Lys Asn Arg Pro  
 245 250 255  
 Ala Met Asn Tyr Asp Lys Leu Ser Arg Ser Ile Arg Gln Tyr Tyr Lys  
 260 265 270  
 Lys Gly Ile Ile Arg Lys Pro Asp Ile Xaa Gln Arg Leu Val Tyr Gln  
 275 280 285  
 Phe Val His Pro Ile  
 290

<210> 634  
 <211> 227  
 <212> PRT  
 <213> Homo sapiens

<400> 634  
 Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Ala  
 1 5 10 15  
 Glu Glu Glu Glu Glu Glu Asp Glu Glu Glu Glu Glu Glu Glu Glu  
 20 25 30  
 Glu Glu Glu Glu Glu Pro Gln Gln Arg Gly Gln Gly Glu Lys Ser Ala  
 35 40 45  
 Thr Pro Ser Arg Lys Ile Leu Asp Pro Asn Thr Gly Glu Pro Ala Pro  
 50 55 60  
 Val Leu Ser Ser Pro Pro Pro Ala Asp Val Ser Thr Phe Leu Ala Phe  
 65 70 75 80  
 Pro Ser Pro Glu Lys Leu Leu Arg Leu Gly Pro Lys Ser Ser Val Leu  
 85 90 95  
 Ile Ala Gln Gln Thr Asp Thr Ser Asp Pro Glu Lys Val Val Ser Ala



593

100	105	110
Phe Leu Lys Val Ser Ser Val	Phe Lys Asp Glu Ala Thr Val Arg Met	
115	120	125
Ala Val Gln Asp Ala Val Asp	Ala Leu Met Gln Lys Ala Phe Asn Ser	
130	135	140
Ser Ser Phe Asn Ser Asn Thr Phe	Leu Thr Arg Leu Leu Val His Met	
145	150	155
Gly Leu Leu Lys Ser Glu Asp Lys	Val Lys Ala Ile Ala Asn Leu Tyr	
165	170	175
Gly Pro Leu Met Ala Leu Asn His	Met Val Gln Gln Asp Tyr Phe Pro	
180	185	190
Lys Ala Leu Ala Pro Leu Leu Leu	Ala Phe Val Thr Lys Pro Asn Ser	
195	200	205
Ala Leu Glu Ser Cys Ser Phe Ala	Arg His Ser Leu Leu Gln Thr Leu	
210	215	220
Tyr Lys Val		
225		

<210> 635  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 635

Thr Ser Gly Cys Ile Ser Asn Gly Lys Met Ser Ser Asn Val Pro Ala
1 5 10 15
Asp Met Ile Asn Leu Arg Leu Ile Leu Val Ser Gly Lys Thr Lys Glu
20 25 30
Phe Leu Phe Ser Pro Asn Asp Ser Ala Ser Asp Ile Ala Lys His Val
35 40 45
Tyr Asp Asn Trp Pro Met Asp Trp Glu Glu Glu Gln Val Ser Ser Pro
50 55 60
Asn Ile Leu Arg Leu Ile Tyr Gln Gly Arg Phe Leu His Gly Asn Val
65 70 75 80
Thr Leu Gly Ala Leu Lys Leu Pro Phe Gly Lys Thr Thr Val Met His
85 90 95

594

Leu Val Ala Arg Glu Thr Leu Pro Glu Pro Asn Ser Gln Gly Gln Arg  
 100 105 110

Asn Arg Glu Lys Thr Gly Glu Ser Asn Cys Cys Val Ile Leu  
 115 120 125

&lt;210&gt; 636

&lt;211&gt; 195

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 636

Val Ser Gly Phe Ala Gly Pro Ala Ser Leu Ile Ser Met Lys Leu Leu  
 1 5 10 15

Ser Leu Val Ala Val Val Gly Cys Leu Leu Val Pro Pro Ala Glu Ala  
 20 25 30

Asn Lys Ser Ser Glu Asp Ile Arg Cys Lys Cys Ile Cys Pro Pro Tyr  
 35 40 45

Arg Asn Ile Ser Gly His Ile Tyr Asn Gln Asn Val Ser Gln Lys Asp  
 50 55 60

Cys Asn Cys Leu His Val Val Glu Pro Met Pro Val Pro Gly His Asp  
 65 70 75 80

Val Glu Ala Tyr Cys Leu Leu Cys Glu Cys Arg Tyr Glu Glu Arg Xaa  
 85 90 95

Thr Thr Thr Ile Lys Val Ile Ile Val Ile Tyr Leu Ser Val Val Gly  
 100 105 110

Ala Leu Leu Leu Tyr Met Ala Phe Leu Met Leu Val Asp Pro Leu Ile  
 115 120 125

Arg Lys Pro Asp Ala Tyr Thr Glu Gln Leu His Asn Glu Glu Glu Asn  
 130 135 140

Glu Asp Ala Arg Ser Met Ala Ala Ala Ala Ala Ser Leu Gly Gly Pro  
 145 150 155 160

Arg Ala Asn Thr Val Leu Glu Arg Val Glu Gly Ala Gln Gln Arg Trp

595

	165		170		175										
Lys	Leu	Gln	Val	Gln	Glu	Gln	Arg	Lys	Thr	Val	Phe	Asp	Arg	His	Lys
		180						185						190	
Met	Leu	Ser													
		195													

<210> 637  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (92)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (115)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (138)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (151)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (156)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 637															
Arg	Pro	Thr	Arg	Pro	Gly	Asn	Ser	Arg	Arg	Arg	Gly	Arg	Arg	Gly	Cys
1				5					10					15	

Trp	Arg	Leu	Leu	Gly	Phe	Gly	Ala	Ala	Ala	Ile	Met	Pro	Gly	Ile	Val
			20				25						30		

Glu	Leu	Pro	Thr	Leu	Glu	Asp	Leu	Lys	Val	Gln	Glu	Val	Lys	Val	Ser
		35					40						45		

Ser	Ser	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr	Gly	Val	Gln	Cys	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

596

50                      55                      60  
 Lys Pro Asn Lys Glu Phe Met Leu Cys Arg Trp Glu Glu Lys Asp Pro  
 65                      70                      75                      80  
 Arg Arg Cys Leu Glu Glu Gly Lys Leu Val Asn Xaa Cys Ala Leu Asp  
                     85                      90                      95  
 Phe Phe Arg Gln Ile Lys Leu Ser Leu Cys Arg Ala Phe Tyr Arg Leu  
                     100                      105                      110  
 Leu Asp Xaa His Arg Leu Leu Arg Pro Ala Val Phe Ser Ser Leu Pro  
                     115                      120                      125  
 Gln Thr Ala Gly Gln Phe Asp Asp Val Xaa Gly Ala Thr Gly Met Val  
                     130                      135                      140  
 Arg Leu Asn Trp Gly Lys Xaa Ser Ser His Gln Xaa Glu Asn Ser  
 145                      150                      155

<210> 638  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 638  
 Phe Ser Arg Asp Lys Val Ser Pro Cys Trp Pro Gly Trp Ser Arg Thr  
 1                      5                      10                      15  
 Pro Gly Leu Arg  
                     20

<210> 639  
 <211> 408  
 <212> PRT  
 <213> Homo sapiens

<400> 639  
 Thr Trp Gly Gln Thr Pro Cys Ser Pro Gly His Gly Gln Arg Pro Ser  
 1                      5                      10                      15  
 Ser Thr Cys Leu Thr Val Gly Pro Gly Gly Gly Pro Ser Leu Gly Arg  
                     20                      25                      30  
 Pro Cys Pro Gln Leu Leu Leu Gln Phe Gly Val Leu Phe Cys Thr Ile  
                     35                      40                      45

597

Leu	Leu	Leu	Leu	Trp	Val	Ser	Val	Phe	Leu	Tyr	Gly	Ser	Phe	Tyr	Tyr	50	55	60	
Ser	Tyr	Met	Pro	Thr	Val	Ser	His	Leu	Ser	Pro	Val	His	Phe	Tyr	Tyr	65	70	75	80
Arg	Thr	Asp	Cys	Asp	Ser	Ser	Thr	Thr	Ser	Leu	Cys	Ser	Phe	Pro	Val	85	90	95	
Ala	Asn	Val	Ser	Leu	Thr	Lys	Gly	Gly	Arg	Asp	Arg	Val	Leu	Met	Tyr	100	105	110	
Gly	Gln	Pro	Tyr	Arg	Val	Thr	Leu	Glu	Leu	Glu	Leu	Pro	Glu	Ser	Pro	115	120	125	
Val	Asn	Gln	Asp	Leu	Gly	Met	Phe	Leu	Val	Thr	Ile	Ser	Cys	Tyr	Thr	130	135	140	
Arg	Gly	Gly	Arg	Ile	Ile	Ser	Thr	Ser	Ser	Arg	Ser	Val	Met	Leu	His	145	150	155	160
Tyr	Arg	Ser	Asp	Leu	Leu	Gln	Met	Leu	Asp	Thr	Leu	Val	Phe	Ser	Ser	165	170	175	
Leu	Leu	Leu	Phe	Gly	Phe	Ala	Glu	Gln	Lys	Gln	Leu	Leu	Glu	Val	Glu	180	185	190	
Leu	Tyr	Ala	Asp	Tyr	Arg	Glu	Asn	Ser	Tyr	Val	Pro	Thr	Thr	Gly	Ala	195	200	205	
Ile	Ile	Glu	Ile	His	Ser	Lys	Arg	Ile	Gln	Leu	Tyr	Gly	Ala	Tyr	Leu	210	215	220	
Arg	Ile	His	Ala	His	Phe	Thr	Gly	Leu	Arg	Tyr	Leu	Leu	Tyr	Asn	Phe	225	230	235	240
Pro	Met	Thr	Cys	Ala	Phe	Ile	Gly	Val	Ala	Ser	Asn	Phe	Thr	Phe	Leu	245	250	255	
Ser	Val	Ile	Val	Leu	Phe	Ser	Tyr	Met	Gln	Trp	Val	Trp	Gly	Gly	Ile	260	265	270	
Trp	Pro	Arg	His	Arg	Phe	Ser	Leu	Gln	Val	Asn	Ile	Arg	Lys	Arg	Asp	275	280	285	
Asn	Ser	Arg	Lys	Glu	Val	Gln	Arg	Arg	Ile	Ser	Ala	His	Gln	Pro	Gly	290	295	300	
Pro	Glu	Gly	Gln	Glu	Glu	Ser	Thr	Pro	Gln	Ser	Asp	Val	Thr	Glu	Asp	305	310	315	320

598

Gly Glu Ser Pro Glu Asp Pro Ser Gly Thr Glu Gly Gln Leu Ser Glu  
325 330 335

Glu Glu Lys Pro Asp Gln Gln Pro Leu Ser Gly Glu Glu Glu Leu Glu  
340 345 350

Pro Glu Ala Ser Asp Gly Ser Gly Ser Trp Glu Asp Ala Ala Leu Leu  
355 360 365

Thr Glu Ala Asn Leu Pro Ala Pro Ala Pro Ala Ser Ala Ser Ala Pro  
370 375 380

Val Leu Glu Thr Leu Gly Ser Ser Glu Pro Ala Gly Gly Ala Leu Arg  
385 390 395 400

Gln Arg Pro Thr Cys Ser Ser Ser  
405

&lt;210&gt; 640

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (268)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (271)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (273)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

599

<221> SITE  
 <222> (274)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (276)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (286)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 640  
 Phe Ser Ser Ser Ala Cys Pro Ser Val Xaa Ser Leu Phe Val Xaa Leu  
   1                  5                  10                  15  
 Gly Lys Asn Pro His Asp Ala Gln Gly His Pro Arg Ala Ser Glu Asp  
                   20                  25                  30  
 Gln Pro Ser Ser Gly Lys Pro Val Thr Ser Tyr Pro Gly Glu Cys Gly  
           35                  40                  45  
 Phe Val Phe Thr Lys Glu Ala Ser Leu Glu Ile Arg Asp Met Leu Leu  
   50                  55                  60  
 Ala Asn Lys Val Pro Ala Ala Ala Arg Ala Gly Ala Ile Ala Pro Cys  
   65                  70                  75                  80  
 Glu Val Thr Val Pro Ala Gln Asn Thr Gly Leu Gly Pro Glu Lys Thr  
                   85                  90                  95  
 Ser Phe Phe Gln Ala Leu Gly Ile Thr Thr Lys Ile Ser Arg Gly Thr  
           100                  105                  110  
 Ile Glu Ile Leu Ser Asp Val Gln Leu Ile Lys Thr Gly Asp Lys Val  
   115                  120                  125  
 Gly Ala Ser Glu Ala Thr Leu Leu Asn Met Leu Asn Ile Ser Pro Phe  
   130                  135                  140  
 Ser Phe Gly Leu Ile Ile Gln Gln Val Phe Asp Asn Gly Ser Ile Tyr  
   145                  150                  155                  160  
 Asn Pro Glu Val Leu Asp Ile Thr Glu Glu Thr Leu His Ser Arg Phe  
           165                  170                  175  
 Leu Glu Gly Val Arg Asn Val Ala Ser Val Cys Leu Gln Ile Gly Tyr  
   180                  185                  190

600

Pro Thr Val Ala Ser Val Pro His Ser Ile Ile Asn Gly Tyr Lys Arg  
 195 200 205

Val Leu Ala Leu Ser Val Glu Thr Asp Tyr Thr Phe Pro Leu Ala Glu  
 210 215 220

Lys Val Lys Ala Phe Leu Ala Asp Pro Ser Ala Phe Val Ala Ala Ala  
 225 230 235 240

Pro Val Ala Ala Ala Thr Thr Ala Ala Pro Ala Ala Ala Ala Ala Pro  
 245 250 255

Ala Lys Val Glu Ala Lys Glu Glu Ser Glu Glu Xaa Asp Glu Xaa Ile  
 260 265 270

Xaa Xaa Ser Xaa Ile Ser Lys Ser Asn Asn Ser Ser Gln Xaa Ile Val  
 275 280 285

&lt;210&gt; 641

&lt;211&gt; 444

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 641

Asn Glu Gln Asp Asn Cys Val Leu Ile His Asp Val Asp Gln Arg Asn  
 1 5 10 15

Ser Asp Lys Asp Ile Phe Gly Asp Ala Cys Asp Asn Cys Leu Ser Val  
 20 25 30

Leu Xaa Asn Asp Gln Lys Asp Thr Asp Gly Asp Gly Arg Gly Asp Ala  
 35 40 45

Cys Asp Asp Asp Met Asp Gly Asp Gly Ile Lys Asn Ile Leu Asp Asn  
 50 55 60

Cys Pro Lys Phe Pro Asn Arg Asp Gln Arg Asp Lys Asp Gly Asp Gly  
 65 70 75 80

Val Gly Asp Ala Cys Asp Ser Cys Pro Asp Val Ser Asn Pro Asn Gln  
 85 90 95



601

Ser Asp Val Asp Asn Asp Leu Val Gly Asp Ser Cys Asp Thr Asn Gln  
 100 105 110  
 Asp Ser Asp Gly Asp Gly His Gln Asp Ser Thr Asp Asn Cys Pro Thr  
 115 120 125  
 Val Ile Asn Ser Ala Gln Leu Asp Thr Asp Lys Asp Gly Ile Gly Asp  
 130 135 140  
 Glu Cys Asp Asp Asp Asp Asp Asn Asp Gly Ile Pro Asp Leu Val Pro  
 145 150 155 160  
 Pro Gly Pro Asp Asn Cys Arg Leu Val Pro Asn Pro Ala Gln Glu Asp  
 165 170 175  
 Ser Asn Ser Asp Gly Val Gly Asp Ile Cys Glu Ser Asp Phe Asp Gln  
 180 185 190  
 Asp Gln Val Ile Asp Arg Ile Asp Val Cys Pro Glu Asn Ala Glu Val  
 195 200 205  
 Thr Leu Thr Asp Phe Arg Ala Tyr Gln Thr Val Val Leu Asp Pro Glu  
 210 215 220  
 Gly Asp Ala Gln Ile Asp Pro Asn Trp Val Val Leu Asn Gln Gly Met  
 225 230 235 240  
 Glu Ile Val Gln Thr Met Asn Ser Asp Pro Gly Leu Ala Val Gly Tyr  
 245 250 255  
 Thr Ala Phe Asn Gly Val Asp Phe Glu Gly Thr Phe His Val Asn Thr  
 260 265 270  
 Gln Thr Asp Asp Asp Tyr Ala Gly Phe Ile Phe Gly Tyr Gln Asp Ser  
 275 280 285  
 Ser Ser Phe Tyr Val Val Met Trp Lys Gln Thr Glu Gln Thr Tyr Trp  
 290 295 300  
 Gln Ala Thr Pro Phe Arg Ala Val Ala Glu Pro Gly Ile Gln Leu Lys  
 305 310 315 320  
 Ala Val Lys Ser Lys Thr Gly Pro Gly Glu His Leu Arg Asn Ser Leu  
 325 330 335  
 Trp His Thr Gly Asp Thr Ser Asp Gln Val Arg Leu Leu Trp Lys Asp  
 340 345 350  
 Ser Arg Asn Val Gly Trp Lys Asp Lys Val Ser Tyr Arg Trp Phe Leu  
 355 360 365

602

Gln His Arg Pro Gln Val Gly Tyr Ile Arg Val Arg Phe Tyr Glu Gly  
 370 375 380  
 Ser Glu Leu Val Ala Asp Ser Gly Val Thr Ile Asp Thr Thr Met Arg  
 385 390 395 400  
 Gly Gly Arg Leu Gly Val Phe Cys Phe Ser Gln Glu Asn Ile Ile Trp  
 405 410 415  
 Ser Asn Leu Lys Tyr Arg Cys Asn Asp Thr Ile Pro Glu Asp Phe Gln  
 420 425 430  
 Glu Phe Gln Thr Gln Asn Phe Asp Arg Phe Asp Asn  
 435 440

<210> 642  
 <211> 326  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (50)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (296)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 642  
 Ser Ala Arg Ala Ser Asp Leu Gly Ala Pro Arg Thr Trp Thr Gly Ala  
 1 5 10 15  
 Ala Ala Gly Pro Arg Thr Pro Ser Ala His Ile Pro Val Pro Ala Gln  
 20 25 30  
 Arg Ala Thr Pro Gly Lys Ala Arg Leu Asp Glu Val Met Ala Ala Ala  
 35 40 45  
 Ala Xaa Thr Ser Leu Ser Thr Ser Pro Leu Leu Leu Gly Ala Pro Val  
 50 55 60  
 Ala Ala Phe Ser Pro Glu Pro Gly Leu Glu Pro Trp Lys Glu Ala Leu  
 65 70 75 80  
 Val Arg Pro Pro Gly Ser Tyr Ser Ser Ser Ser Asn Ser Gly Asp Trp  
 85 90 95

603

Gly Trp Asp Leu Ala Ser Asp Gln Ser Ser Pro Ser Thr Pro Ser Pro  
 100 105 110  
 Pro Leu Pro Pro Glu Ala Ala His Phe Leu Phe Gly Glu Pro Thr Leu  
 115 120 125  
 Arg Lys Arg Lys Ser Pro Ala Gln Val Met Phe Gln Cys Leu Trp Lys  
 130 135 140  
 Ser Cys Gly Lys Val Leu Ser Thr Ala Ser Ala Met Gln Arg His Ile  
 145 150 155 160  
 Arg Leu Val His Leu Gly Arg Gln Ala Glu Pro Asp Gln Ser Asp Gly  
 165 170 175  
 Glu Glu Asp Phe Tyr Tyr Thr Glu Leu Asp Val Gly Val Asp Thr Leu  
 180 185 190  
 Thr Asp Gly Leu Ser Ser Leu Thr Pro Val Ser Pro Thr Ala Ser Met  
 195 200 205  
 Pro Pro Ala Phe Pro Arg Leu Glu Leu Pro Glu Leu Leu Glu Pro Pro  
 210 215 220  
 Ala Leu Pro Ser Pro Leu Arg Pro Pro Ala Pro Pro Leu Pro Pro Pro  
 225 230 235 240  
 Pro Val Leu Ser Thr Val Ala Asn Pro Gln Ser Cys His Ser Asp Arg  
 245 250 255  
 Val Tyr Gln Gly Cys Leu Thr Pro Ala Arg Leu Glu Pro Gln Pro Thr  
 260 265 270  
 Glu Val Gly Ala Cys Pro Pro Ala Leu Ser Ser Arg Ile Gly Val Thr  
 275 280 285  
 Leu Arg Lys Pro Arg Gly Asp Xaa Lys Lys Cys Arg Lys Val Tyr Gly  
 290 295 300  
 Met Glu Arg Arg Asp Leu Trp Cys Thr Ala Cys Arg Trp Lys Lys Ala  
 305 310 315 320  
 Cys Gln Arg Phe Leu Asp  
 325

&lt;210&gt; 643

&lt;211&gt; 129

&lt;212&gt; PRT

604

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (10)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (18)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (19)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (103)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 643

Asp Val Arg Leu Ser Gly Arg Asn Xaa Xaa Val Asp Val Xaa Asp His

1

5

10

15

605

Gln Xaa Xaa Leu Leu Glu Gln Xaa Asp Leu Leu Ala Gly Leu Ile Ser  
                   20                  25                  30  
 Asn Ser Ser Asp Ala Xaa Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp  
                   35                  40                  45  
 Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu Ile Pro  
                   50                  55                  60  
 Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Gly Tyr Arg Asp Arg Met  
                   65                  70                  75                  80  
 Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Xaa Ser Gly  
                   85                  90                  95  
 Thr Lys Ala Phe Met Glu Xaa Leu Gln Ala Gly Ala Asp Ile Ser Met  
                   100                  105                  110  
 Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Arg  
                   115                  120                  125

Arg

&lt;210&gt; 644

&lt;211&gt; 156

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 644

Ser Thr His Ala Ser Ala Ser Arg Arg Leu Leu Xaa Asp Val Cys Gln  
           1                  5                  10                  15  
 Asp Cys Ile Gln Met Val Thr Asp Ile Gln Thr Ala Val Arg Thr Asn  
           20                  25                  30  
 Ser Thr Phe Val Glu Ala Leu Val Asp His Ala Lys Ala Gln Cys Asp  
           35                  40                  45  
 Leu Leu Gly Pro Gly Met Ala Asp Met Cys Lys Asn Tyr Ile Asn Gln  
           50                  55                  60  
 Tyr Ser Asp Ile Ala Val Gln Met Met Met His Met Gln Pro Lys Glu  
           65                  70                  75                  80

606

Ile Cys Gly Leu Val Gly Phe Cys Asp Gln Val Lys Glu Met Pro Met  
                                     85                                    90                                    95

Gln Thr Leu Ile Pro Ala Lys Ala Val Ser Glu Asn Val Ile Pro Ala  
                                     100                                    105                                    110

Leu Glu Leu Val Glu Pro Ile Lys Lys Asp Thr Val Gln Ala Lys Thr  
                                     115                                    120                                    125

Ser Val Ser Cys Gly Asp Met Arg Val Thr Trp Leu Lys Glu Val Ala  
                                     130                                    135                                    140

Lys Leu His Trp Thr Thr Thr Gly Leu Arg Lys Lys  
                                     145                                    150                                    155

&lt;210&gt; 645

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 645

Ala Asp Pro Gly Val Gly Ala Val Pro Gly Leu Ala Ala Asp Leu Ala  
   1                                    5                                    10                                    15

Thr Ala Ala Arg Ser Leu Gly Pro Ala Leu Val Leu Asp Leu Gly Arg  
                                     20                                    25                                    30

Pro Pro Ser Pro Asp Pro His Glu Gly Pro Ser Pro Ser Pro Arg Arg  
                                     35                                    40                                    45

Ser Pro Asp Leu Val Arg Gly Pro Gly Pro Gly Leu Gly Pro Gly Val  
                                     50                                    55                                    60

Leu Pro Gln Cys Pro Arg Gly Asn Pro Asn Pro Gly Arg Asp Arg Arg  
   65                                    70                                    75                                    80

Val Pro Pro Ser Leu Leu Lys Arg Lys Glu Arg Cys Pro Leu Lys Lys  
                                     85                                    90                                    95

Met Val Met Ser Gly Asn Pro Arg His Ile Thr Leu Ile His Lys Trp  
                                     100                                    105                                    110

Asp Leu Gly  
                                     115

&lt;210&gt; 646

607

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (127)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 646

Tyr Met Pro Asn Gly Ser Leu Asn Glu Leu Leu His Arg Lys Thr Glu  
 1 5 10 15

Tyr Pro Asp Val Ala Trp Pro Leu Arg Phe Arg Ile Leu His Glu Ile  
 20 25 30

Ala Leu Gly Val Asn Tyr Leu His Asn Met Thr Pro Pro Leu Leu His  
 35 40 45

His Asp Leu Lys Thr Gln Asn Ile Leu Leu Asp Asn Glu Phe His Val  
 50 55 60

Lys Ile Ala Asp Phe Gly Leu Ser Lys Trp Arg Met Met Ser Leu Ser  
 65 70 75 80

Gln Ser Arg Ser Ser Lys Ser Ala Pro Glu Gly Gly Thr Ile Ile Tyr  
 85 90 95

Met Pro Pro Glu Asn Tyr Glu Pro Gly Gln Lys Ser Arg Ala Ser Ile  
 100 105 110

Lys His Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp Glu Val Xaa Ser  
 115 120 125

Arg Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu Gln Ile Met Tyr  
 130 135 140

Ser Val Ser Gln Gly His Trp Thr Gly  
 145 150

&lt;210&gt; 647

&lt;211&gt; 220

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 647

Ala Ser Glu Gln Gly Ala Val Gly Gln Gly Gly Leu Ala Gly Val Pro  
 1 5 10 15

608

Thr Leu Thr Ser Leu Pro Ser Ser Cys Pro Glu Pro Arg Pro Ser Met  
                     20                    25                    30  
 Asp Ala Val Asp Ala Thr Met Glu Lys Leu Arg Ala Gln Cys Leu Ser  
                     35                    40                    45  
 Arg Gly Ala Ser Gly Ile Gln Gly Leu Ala Arg Phe Phe Arg Gln Leu  
                     50                    55                    60  
 Asp Arg Asp Gly Ser Arg Ser Leu Asp Ala Asp Glu Phe Arg Gln Gly  
                     65                    70                    75                    80  
 Leu Ala Lys Leu Gly Leu Val Leu Asp Gln Ala Glu Ala Glu Gly Val  
                     85                    90                    95  
 Cys Arg Lys Trp Asp Arg Asn Gly Ser Gly Thr Leu Asp Leu Glu Glu  
                     100                    105                    110  
 Phe Leu Arg Ala Leu Arg Pro Pro Met Ser Gln Ala Arg Glu Ala Val  
                     115                    120                    125  
 Ile Ala Ala Ala Phe Ala Lys Leu Asp Arg Ser Gly Asp Gly Val Val  
                     130                    135                    140  
 Thr Val Asp Asp Leu Arg Gly Val Tyr Ser Gly Arg Ala His Pro Lys  
                     145                    150                    155                    160  
 Val Arg Ser Gly Glu Trp Thr Glu Asp Glu Val Leu Arg Arg Phe Leu  
                     165                    170                    175  
 Asp Asn Phe Asp Ser Ser Glu Lys Asp Gly Gln Val Thr Leu Ala Glu  
                     180                    185                    190  
 Phe Gln Asp Tyr Tyr Ser Gly Val Ser Ala Ser Met Asn Thr Asp Glu  
                     195                    200                    205  
 Glu Phe Val Ala Met Met Thr Ser Ala Trp Gln Leu  
                     210                    215                    220

&lt;210&gt; 648

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 648

Asp Asn Arg Thr Leu Thr Lys Gly Pro Asp Thr Val Gly Thr Met Gly  
                     1                    5                    10                    15

Gln Cys Arg Ser Ala Asn Ala Glu Asp Ala Gln Glu Phe Ser Asp Val



609

20 25 30  
 Glu Arg Ala Ile Glu Thr Leu Ile Lys Asn Phe His Gln Tyr Ser Val  
 35 40 45  
 Glu Gly Gly Lys Glu Thr Leu Thr Pro Ser Glu Leu Arg Asp Leu Val  
 50 55 60  
 Thr Gln Gln Leu Pro His Leu Met Pro Ser Asn Cys Gly Leu Glu Glu  
 65 70 75 80  
 Lys Ile Ala Asn Leu Gly Ser Cys Asn Asp Ser Lys Leu Glu Phe Arg  
 85 90 95  
 Ser Phe Trp Glu Leu Ile Gly Glu Ala Ala Lys Ser Val Lys Leu Glu  
 100 105 110  
 Arg Pro Val Arg Gly His  
 115

&lt;210&gt; 649

&lt;211&gt; 309

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (77)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 649

Asp His His Gln Gly Ala Glu Ser Val Pro Gly Ile Gly Val Ser Pro  
 1 5 10 15  
 Thr Ser Ser Ser Ser Cys Pro Pro Thr Ser Cys Thr Gln Pro Val Thr  
 20 25 30  
 Thr Trp Ser Pro Gly Leu Arg Val Glu Ser Leu Asp Gly Ala Lys Thr  
 35 40 45  
 Gly Lys Gly Ala Leu Thr Gly Ala Pro Gly Ser Phe Gly Ser Ser Glu  
 50 55 60  
 Phe Leu Thr Gly Leu Arg Asn Thr Ser Glu Ala Arg Xaa Thr Arg Gly

610

65					70						75				80
Pro	Ile	Met	Gln	Glu	Pro	Arg	Arg	Val	Thr	Pro	Cys	Leu	Gly	Lys	Arg
				85					90					95	
Gly	Val	Lys	Thr	Pro	Gln	Leu	Gln	Pro	Gly	Ser	Ala	Phe	Leu	Pro	Arg
			100					105					110		
Val	Arg	Arg	Gln	Ser	Phe	Pro	Ala	Arg	Ser	Asp	Ser	Tyr	Thr	Thr	Val
			115				120					125			
Arg	Asp	Phe	Leu	Ala	Val	Pro	Arg	Thr	Ile	Ser	Ser	Ala	Ser	Ala	Thr
	130						135				140				
Leu	Ile	Met	Ala	Val	Ala	Val	Ser	His	Phe	Arg	Pro	Gly	Pro	Glu	Xaa
145					150					155				160	
Trp	Asp	Thr	Ala	Ser	Met	Ala	Ala	Ser	Lys	Val	Lys	Gln	Asp	Met	Pro
			165						170					175	
Pro	Pro	Gly	Gly	Tyr	Gly	Pro	Ile	Asp	Tyr	Lys	Arg	Asn	Leu	Pro	Arg
			180					185					190		
Arg	Gly	Leu	Ser	Gly	Tyr	Ser	Met	Leu	Ala	Ile	Gly	Ile	Gly	Thr	Leu
		195					200					205			
Ile	Tyr	Gly	His	Trp	Ser	Ile	Met	Lys	Trp	Asn	Arg	Glu	Arg	Arg	Arg
	210					215					220				
Leu	Gln	Ile	Glu	Asp	Phe	Glu	Ala	Arg	Ile	Ala	Leu	Leu	Pro	Leu	Leu
225					230					235				240	
Gln	Ala	Glu	Thr	Asp	Arg	Arg	Thr	Leu	Gln	Met	Leu	Arg	Glu	Asn	Leu
				245					250				255		
Glu	Glu	Glu	Ala	Ile	Ile	Met	Lys	Asp	Val	Pro	Asp	Trp	Lys	Val	Gly
			260					265					270		
Glu	Ser	Val	Phe	His	Thr	Thr	Arg	Trp	Val	Pro	Pro	Leu	Ile	Gly	Glu
		275					280					285			
Leu	Tyr	Gly	Leu	Arg	Thr	Thr	Glu	Glu	Ala	Leu	His	Ala	Ser	His	Gly
	290					295					300				
Phe	Met	Trp	Tyr	Thr											
305															

&lt;210&gt; 650

&lt;211&gt; 286

611

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 650

Ile	Pro	Thr	Leu	Ile	Thr	Ala	Phe	Val	Leu	Ala	Thr	Ser	Gln	Ala	Gln
1				5					10					15	

Ala	Gly	Trp	Leu	Gln	His	Asp	Tyr	Gly	His	Leu	Ser	Val	Tyr	Arg	Lys
			20					25					30		

Pro	Lys	Trp	Asn	His	Leu	Val	His	Lys	Phe	Val	Ile	Gly	His	Leu	Lys
	35						40					45			

Gly	Ala	Ser	Ala	Asn	Trp	Trp	Asn	His	Arg	His	Phe	Gln	His	His	Ala
	50					55					60				

Lys	Pro	Asn	Ile	Phe	His	Lys	Asp	Pro	Asp	Val	Asn	Met	Leu	His	Val
65					70					75				80	

Phe	Val	Leu	Gly	Glu	Trp	Gln	Pro	Ile	Glu	Tyr	Gly	Lys	Lys	Lys	Leu
				85					90					95	

Lys	Tyr	Leu	Pro	Tyr	Asn	His	Gln	His	Glu	Tyr	Phe	Phe	Leu	Ile	Gly
			100					105						110	

Pro	Pro	Leu	Leu	Ile	Pro	Met	Tyr	Phe	Gln	Tyr	Gln	Ile	Ile	Met	Thr
		115					120						125		

Met	Ile	Val	His	Lys	Asn	Trp	Val	Asp	Leu	Ala	Trp	Ala	Val	Ser	Tyr
	130					135					140				

Tyr	Ile	Arg	Phe	Phe	Ile	Thr	Tyr	Ile	Pro	Phe	Tyr	Gly	Ile	Leu	Gly
145					150					155				160	

Ala	Leu	Leu	Phe	Leu	Asn	Phe	Ile	Arg	Phe	Leu	Glu	Ser	His	Trp	Phe
				165					170					175	

Val	Trp	Val	Thr	Gln	Met	Asn	His	Ile	Val	Met	Glu	Ile	Asp	Gln	Glu
			180					185					190		

Ala	Tyr	Arg	Asp	Trp	Phe	Ser	Ser	Gln	Leu	Thr	Ala	Thr	Cys	Asn	Val
		195					200					205			

Glu	Gln	Ser	Phe	Phe	Asn	Asp	Trp	Phe	Ser	Gly	His	Leu	Asn	Phe	Gln
	210					215					220				

Ile	Glu	His	His	Leu	Phe	Pro	Thr	Met	Pro	Arg	His	Asn	Leu	His	Lys
225					230					235				240	

Ile	Ala	Pro	Leu	Val	Lys	Ser	Leu	Cys	Ala	Lys	His	Gly	Ile	Glu	Tyr
				245					250					255	

612

Gln Glu Lys Pro Leu Leu Arg Ala Leu Leu Asp Ile Ile Arg Ser Leu  
                   260                  265                  270

Lys Lys Ser Gly Lys Leu Trp Leu Asp Ala Tyr Leu His Lys  
           275                  280                  285

<210> 651

<211> 184

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (57)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (106)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 651

Glu Arg Gly Pro Ile Pro Val Cys Pro His Lys Ala Ala Ser Ser Val  
   1                  5                  10                  15

Ile Ser Leu Leu Arg Ala Glu Leu Arg Leu Tyr Thr Asp Pro His Lys  
           20                  25                  30

Tyr His Xaa Phe Cys Leu Arg Lys Asp Lys Ala His Val Cys Phe Cys  
           35                  40                  45

Phe Arg Phe Leu Phe Ser Phe Phe Xaa Glu Ala Leu Trp Arg Ser Met  
           50                  55                  60

Phe Leu Leu Ser Phe Leu Xaa Lys Pro Ser Phe Trp Ala Thr Gly Leu  
           65                  70                  75                  80

Ile Leu Ser Thr Ser Ser Phe Pro Pro Phe Ser Ile Val Ser Leu Pro

613

	85		90		95
Pro Ser His	Pro Thr Arg	Ala Pro Leu	Xaa Leu Ser	Phe Pro Ser	Ser
	100		105		110
Pro Ala Val	Ser Phe Leu	Arg Ser Gly	Thr Lys Leu	Ile Phe Arg	Arg
	115		120		125
Arg Pro Arg	Gln Lys Glu	Ala Gly Leu	Ser Gln Ser	His Asp Asp	Leu
	130		135		140
Ser Asn Ala	Thr Ala Thr	Pro Ser Val	Arg Lys Lys	Ala Gly Ser	Phe
	145		150		155
Ser Arg Arg	Leu Ile Lys	Arg Phe Ser	Phe Lys Ser	Lys Pro Lys	Ala
	165		170		175
Asn Gly Asn	Pro Ser Pro	Gln Leu			
	180				

&lt;210&gt; 652

&lt;211&gt; 641

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (438)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 652

Gln Gly Ser	Glu Pro Ser	Ser Ser Glu	Asn Ala Asn	Asp Thr Ile	Ile Leu
1	5		10		15
Arg Asn Leu	Asn Pro His	Ser Thr Met	Asp Ser Ile	Leu Gly Ala	Leu
	20		25		30
Ala Pro Tyr	Ala Val Leu	Ser Ser Ser	Asn Val Arg	Val Ile Lys	Asp
	35		40		45
Lys Gln Thr	Gln Leu Asn	Arg Gly Phe	Ala Phe Ile	Gln Leu Ser	Thr
	50		55		60
Ile Glu Ala	Ala Gln Leu	Leu Gln Ile	Leu Gln Ala	Leu His Pro	Pro
	65		70		75
Leu Thr Ile	Asp Gly Lys	Thr Ile Asn	Val Glu Phe	Ala Lys Gly	Ser
	85		90		95

614

Lys Arg Asp Met Ala Ser Asn Glu Gly Ser Arg Ile Ser Ala Ala Ser  
 100 105 110  
 Val Ala Ser Thr Ala Ile Ala Ala Ala Gln Trp Ala Ile Ser Gln Ala  
 115 120 125  
 Ser Gln Gly Gly Glu Gly Thr Trp Ala Thr Ser Glu Glu Pro Pro Val  
 130 135 140  
 Asp Tyr Ser Tyr Tyr Gln Gln Asp Glu Gly Tyr Gly Asn Ser Gln Gly  
 145 150 155 160  
 Thr Glu Ser Ser Leu Tyr Ala His Gly Tyr Leu Lys Gly Thr Lys Gly  
 165 170 175  
 Pro Gly Ile Thr Gly Thr Lys Gly Asp Pro Thr Gly Ala Gly Pro Glu  
 180 185 190  
 Ala Ser Leu Glu Pro Gly Ala Asp Ser Val Ser Met Gln Ala Phe Ser  
 195 200 205  
 Arg Ala Gln Pro Gly Ala Ala Pro Gly Ile Tyr Gln Gln Ser Ala Glu  
 210 215 220  
 Ala Ser Ser Ser Gln Gly Thr Ala Ala Asn Ser Gln Ser Tyr Thr Ile  
 225 230 235 240  
 Met Ser Pro Ala Val Leu Lys Ser Glu Leu Gln Ser Pro Thr His Pro  
 245 250 255  
 Ser Ser Ala Leu Pro Pro Ala Thr Ser Pro Thr Ala Gln Glu Ser Tyr  
 260 265 270  
 Ser Gln Tyr Pro Val Pro Asp Val Ser Thr Tyr Gln Tyr Asp Glu Thr  
 275 280 285  
 Ser Gly Tyr Tyr Tyr Asp Pro Gln Thr Gly Leu Tyr Tyr Asp Pro Asn  
 290 295 300  
 Ser Gln Tyr Tyr Tyr Asn Ala Gln Ser Gln Gln Tyr Leu Tyr Trp Asp  
 305 310 315 320  
 Gly Glu Arg Arg Thr Tyr Val Pro Ala Leu Glu Gln Ser Ala Asp Gly  
 325 330 335  
 His Lys Glu Thr Gly Ala Pro Ser Lys Glu Gly Lys Glu Lys Lys Glu  
 340 345 350  
 Lys His Lys Thr Lys Thr Ala Gln Gln Ile Ala Lys Asp Met Glu Arg  
 355 360 365

615

Trp	Ala	Arg	Ser	Leu	Asn	Lys	Gln	Lys	Glu	Asn	Phe	Lys	Asn	Ser	Phe	370	375	380	
Gln	Pro	Ile	Ser	Ser	Leu	Arg	Asp	Asp	Glu	Arg	Arg	Glu	Ser	Ala	Thr	385	390	395	400
Ala	Asp	Ala	Gly	Tyr	Ala	Ile	Leu	Glu	Lys	Lys	Gly	Ala	Leu	Ala	Glu	405	410	415	
Arg	Gln	His	Thr	Ser	Met	Asp	Leu	Pro	Lys	Leu	Ala	Ser	Asp	Asp	Arg	420	425	430	
Pro	Ser	Pro	Pro	Arg	Xaa	Leu	Val	Ala	Ala	Tyr	Ser	Gly	Glu	Ser	Asp	435	440	445	
Ser	Glu	Glu	Glu	Gln	Glu	Arg	Gly	Gly	Pro	Glu	Arg	Glu	Glu	Lys	Leu	450	455	460	
Thr	Asp	Trp	Gln	Lys	Leu	Ala	Cys	Leu	Leu	Cys	Arg	Arg	Gln	Phe	Pro	465	470	475	480
Ser	Lys	Glu	Ala	Leu	Ile	Arg	His	Gln	Gln	Leu	Ser	Gly	Leu	His	Lys	485	490	495	
Gln	Asn	Leu	Glu	Ile	His	Arg	Arg	Ala	His	Leu	Ser	Glu	Asn	Glu	Leu	500	505	510	
Glu	Ala	Leu	Glu	Lys	Asn	Asp	Met	Glu	Gln	Met	Lys	Tyr	Arg	Asp	Arg	515	520	525	
Ala	Ala	Glu	Arg	Arg	Glu	Lys	Tyr	Gly	Ile	Pro	Glu	Pro	Pro	Glu	Pro	530	535	540	
Lys	Arg	Arg	Lys	Tyr	Gly	Gly	Ile	Ser	Thr	Ala	Ser	Val	Asp	Phe	Glu	545	550	555	560
Gln	Pro	Thr	Arg	Asp	Gly	Leu	Gly	Ser	Asp	Asn	Ile	Gly	Ser	Arg	Met	565	570	575	
Leu	Gln	Ala	Met	Gly	Trp	Lys	Glu	Gly	Ser	Gly	Leu	Gly	Arg	Lys	Lys	580	585	590	
Gln	Gly	Ile	Val	Thr	Pro	Ile	Glu	Ala	Gln	Thr	Arg	Val	Arg	Gly	Ser	595	600	605	
Gly	Leu	Gly	Ala	Arg	Gly	Ser	Ser	Tyr	Gly	Val	Thr	Ser	Thr	Glu	Ser	610	615	620	
Tyr	Lys	Glu	Thr	Leu	His	Lys	Thr	Met	Val	Thr	Arg	Phe	Asn	Glu	Ala	625	630	635	640

616

Gln

<210> 653  
 <211> 516  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (247)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 653  
 Xaa Thr Arg Pro Gly Arg Gln Thr Arg Leu Cys Arg Pro Ala Ile Ser  
       1                  5                  10                  15  
 Leu Leu Trp Leu Val Thr Pro Gly Val Pro Ala Phe Ser Gly Trp Gly  
           20                  25                  30  
 Arg Arg His Arg Gly Arg Thr Gly Arg Arg Ala Met Ala Ser Cys Val  
           35                  40                  45  
 Gly Ser Arg Thr Leu Ser Lys Asp Asp Val Asn Tyr Lys Met His Phe  
       50                  55                  60  
 Arg Met Ile Asn Glu Gln Gln Val Glu Asp Ile Thr Ile Asp Phe Phe  
       65                  70                  75                  80  
 Tyr Arg Pro His Thr Ile Thr Leu Leu Ser Phe Thr Ile Val Ser Leu  
           85                  90                  95  
 Met Tyr Phe Ala Phe Thr Arg Asp Asp Ser Val Pro Glu Asp Asn Ile  
          100                 105                 110  
 Trp Arg Gly Ile Leu Ser Val Ile Phe Phe Phe Leu Ile Ile Ser Val  
      115                 120                 125  
 Leu Ala Phe Pro Asn Gly Pro Phe Thr Arg Pro His Pro Ala Leu Trp  
      130                 135                 140  
 Arg Met Val Phe Gly Leu Ser Val Leu Tyr Phe Leu Phe Leu Val Phe  
      145                 150                 155                 160



617

Leu	Leu	Phe	Leu	Asn	Phe	Glu	Gln	Val	Lys	Ser	Leu	Met	Tyr	Trp	Leu	165	170	175	
Asp	Pro	Asn	Leu	Arg	Tyr	Ala	Thr	Arg	Glu	Ala	Asp	Val	Met	Glu	Tyr	180	185	190	
Ala	Val	Asn	Cys	His	Val	Ile	Thr	Trp	Glu	Arg	Ile	Ile	Ser	His	Phe	195	200	205	
Asp	Ile	Phe	Ala	Phe	Gly	His	Phe	Trp	Gly	Trp	Ala	Met	Lys	Ala	Leu	210	215	220	
Leu	Ile	Arg	Ser	Tyr	Gly	Leu	Cys	Trp	Thr	Ile	Ser	Ile	Thr	Trp	Glu	225	230	235	240
Leu	Thr	Glu	Leu	Phe	Phe	Xaa	His	Leu	Leu	Pro	Asn	Phe	Ala	Glu	Cys	245	250	255	
Trp	Trp	Asp	Gln	Val	Ile	Leu	Asp	Ile	Leu	Leu	Cys	Asn	Gly	Gly	Gly	260	265	270	
Ile	Trp	Leu	Gly	Met	Val	Val	Cys	Arg	Phe	Leu	Glu	Met	Arg	Thr	Tyr	275	280	285	
His	Trp	Ala	Ser	Phe	Lys	Asp	Ile	His	Thr	Thr	Thr	Gly	Lys	Ile	Lys	290	295	300	
Arg	Ala	Val	Leu	Gln	Phe	Thr	Pro	Ala	Ser	Trp	Thr	Tyr	Val	Arg	Trp	305	310	315	320
Phe	Asp	Pro	Lys	Ser	Ser	Phe	Gln	Arg	Val	Ala	Gly	Val	Tyr	Leu	Phe	325	330	335	
Met	Ile	Ile	Trp	Gln	Leu	Thr	Glu	Leu	Asn	Thr	Phe	Phe	Leu	Lys	His	340	345	350	
Ile	Phe	Val	Phe	Gln	Ala	Ser	His	Pro	Leu	Ser	Trp	Gly	Arg	Ile	Leu	355	360	365	
Phe	Ile	Gly	Gly	Ile	Thr	Ala	Pro	Thr	Val	Arg	Gln	Tyr	Tyr	Ala	Tyr	370	375	380	
Leu	Thr	Asp	Thr	Gln	Cys	Lys	Arg	Val	Gly	Thr	Gln	Cys	Trp	Val	Phe	385	390	395	400
Gly	Val	Ile	Gly	Phe	Leu	Glu	Ala	Ile	Val	Cys	Ile	Lys	Phe	Gly	Gln	405	410	415	
Asp	Leu	Phe	Ser	Lys	Thr	Gln	Ile	Leu	Tyr	Val	Val	Leu	Trp	Leu	Leu	420	425	430	

618

Cys Val Ala Phe Thr Thr Phe Leu Cys Leu Tyr Gly Met Ile Trp Tyr  
           435                          440                          445  
 Ala Glu His Tyr Gly His Arg Glu Lys Thr Tyr Ser Glu Cys Glu Asp  
           450                          455                          460  
 Gly Thr Tyr Ser Pro Glu Ile Ser Trp His His Arg Lys Gly Thr Lys  
 465                          470                          475                          480  
 Gly Ser Glu Asp Ser Pro Pro Lys His Ala Gly Asn Asn Glu Ser His  
                           485                          490                          495  
 Ser Ser Arg Arg Arg Asn Arg His Ser Lys Ser Lys Val Thr Asn Gly  
                           500                          505                          510  
 Val Gly Lys Lys  
           515

<210> 654  
 <211> 663  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Leu Glu Cys Arg Glu Ala His Ile Arg Asp Val Pro Val Val Arg Leu  
   1                          5                          10                          15  
 Pro Ala Asp Ser Pro Ile Pro Glu Arg Gly Asp Leu Ser Cys Arg Met  
                           20                          25                          30  
 His Thr Cys Phe Asp Val Tyr Arg Cys Gly Phe Asn Pro Lys Asn Lys  
                           35                          40                          45  
 Ile Lys Val Tyr Ile Tyr Ala Leu Lys Lys Tyr Val Asp Asp Phe Gly  
           50                          55                          60  
 Val Ser Val Ser Asn Thr Ile Ser Arg Glu Tyr Asn Glu Leu Leu Met  
   65                          70                          75                          80  
 Ala Ile Ser Asp Ser Asp Tyr Tyr Thr Asp Asp Ile Asn Arg Ala Cys  
                           85                          90                          95  
 Leu Phe Val Pro Ser Ile Asp Val Leu Asn Gln Asn Thr Leu Arg Ile  
                           100                          105                          110  
 Lys Glu Thr Ala Gln Ala Met Ala Gln Leu Ser Arg Trp Asp Arg Gly  
           115                          120                          125  
 Thr Asn His Leu Leu Phe Asn Met Leu Pro Gly Gly Pro Pro Asp Tyr

619

130		135		140
Asn Thr Ala Leu Asp Val Pro Arg Asp Arg Ala Leu Leu Ala Gly Gly				
145		150		155
Gly Phe Ser Thr Trp Thr Tyr Arg Gln Gly Tyr Asp Val Ser Ile Pro				
	165		170	175
Val Tyr Ser Pro Leu Ser Ala Glu Val Asp Leu Pro Glu Lys Gly Pro				
	180		185	190
Gly Pro Arg Gln Tyr Phe Leu Leu Ser Ser Gln Val Gly Leu His Pro				
	195		200	205
Glu Tyr Arg Glu Asp Leu Glu Ala Leu Gln Val Lys His Gly Glu Ser				
	210		215	220
Val Leu Val Leu Asp Lys Cys Thr Asn Leu Ser Glu Gly Val Leu Ser				
	225		230	235
Val Arg Lys Arg Cys His Lys His Gln Val Phe Asp Tyr Pro Gln Val				
	245		250	255
Leu Gln Glu Ala Thr Phe Cys Val Val Leu Arg Gly Ala Arg Leu Gly				
	260		265	270
Gln Ala Val Leu Ser Asp Val Leu Gln Ala Gly Cys Val Pro Val Val				
	275		280	285
Ile Ala Asp Ser Tyr Ile Leu Pro Phe Ser Glu Val Leu Asp Trp Lys				
	290		295	300
Arg Ala Ser Val Val Val Pro Glu Glu Lys Met Ser Asp Val Tyr Ser				
	305		310	315
Ile Leu Gln Ser Ile Pro Gln Arg Gln Ile Glu Glu Met Gln Arg Gln				
	325		330	335
Ala Arg Trp Phe Trp Glu Ala Tyr Phe Gln Ser Ile Lys Ala Ile Ala				
	340		345	350
Leu Ala Thr Leu Gln Ile Ile Asn Asp Arg Ile Tyr Pro Tyr Ala Ala				
	355		360	365
Ile Ser Tyr Glu Glu Trp Asn Asp Pro Pro Ala Val Lys Trp Gly Ser				
	370		375	380
Val Ser Asn Pro Leu Phe Leu Pro Leu Ile Pro Pro Gln Ser Gln Gly				
	385		390	395
Phe Thr Ala Ile Val Leu Thr Tyr Asp Arg Val Glu Ser Leu Phe Arg				400

620

	405		410		415
Val Ile Thr Glu Val Ser Lys Val Pro Ser Leu Ser Lys Leu Leu Val	420		425		430
Val Trp Asn Asn Gln Asn Lys Asn Pro Pro Glu Asp Ser Leu Trp Pro	435		440		445
Lys Ile Arg Val Pro Leu Lys Val Val Arg Thr Ala Glu Asn Lys Leu	450		455		460
Ser Asn Arg Phe Phe Pro Tyr Asp Glu Ile Glu Thr Glu Ala Val Leu	465		470		475
Ala Ile Asp Asp Asp Ile Ile Met Leu Thr Ser Asp Glu Leu Gln Phe	485		490		495
Gly Tyr Glu Val Trp Arg Glu Phe Pro Asp Arg Leu Val Gly Tyr Pro	500		505		510
Gly Arg Leu His Leu Trp Asp His Glu Met Asn Lys Trp Lys Tyr Glu	515		520		525
Ser Glu Trp Thr Asn Glu Val Ser Met Val Leu Thr Gly Ala Ala Phe	530		535		540
Tyr His Lys Tyr Phe Asn Tyr Leu Tyr Thr Tyr Lys Met Pro Gly Asp	545		550		555
Ile Lys Asn Trp Val Asp Ala His Met Asn Cys Glu Asp Ile Ala Met	565		570		575
Asn Phe Leu Val Ala Asn Val Thr Gly Lys Ala Val Ile Lys Val Thr	580		585		590
Pro Arg Lys Lys Phe Lys Cys Pro Glu Cys Thr Ala Ile Asp Gly Leu	595		600		605
Ser Leu Asp Gln Thr His Met Val Glu Arg Ser Glu Cys Ile Asn Lys	610		615		620
Phe Ala Ser Val Phe Gly Thr Met Pro Leu Lys Val Val Glu His Arg	625		630		635
Ala Asp Pro Val Leu Tyr Lys Asp Asp Phe Pro Glu Lys Leu Lys Ser	645		650		655
Phe Pro Asn Ile Gly Ser Leu	660				

621

<210> 655  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (91)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 655  
 Ala Thr Gln Leu Leu Ser Ser Phe Ser Val Gly Pro Leu Leu Gln Ile  
     1                    5                    10                    15  
 Thr Phe Tyr Glu Asp Lys Asn Phe Gln Gly Arg Arg Tyr Asp Cys Asp  
                     20                    25                    30  
 Cys Asp Cys Ala Asp Xaa His Thr Tyr Leu Ser Arg Cys Asn Ser Ile  
             35                    40                    45  
 Lys Val Glu Gly Gly Thr Trp Ala Val Tyr Glu Arg Pro Asn Phe Ala  
             50                    55                    60  
 Gly Tyr Met Tyr Ile Leu Pro Gln Gly Glu Tyr Pro Glu Tyr Gln Arg  
     65                    70                    75                    80  
 Trp Met Gly Leu Asn Asp Arg Leu Ser Ser Xaa Arg Ala Val Ser Ser  
                     85                    90                    95

Ala

<210> 656  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (59)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>

622

&lt;221&gt; SITE

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 656

Asp	Ala	Asp	Leu	Val	Ile	Trp	Asp	Pro	Asp	Ser	Val	Lys	Thr	Ile	Ser
1				5				10						15	

Ala	Lys	Thr	His	Asn	Ser	Ser	Leu	Glu	Tyr	Asn	Ile	Phe	Glu	Gly	Met
			20					25					30		

Glu	Cys	Arg	Gly	Ser	Pro	Leu	Val	Val	Ile	Ser	Gln	Gly	Lys	Ile	Val
		35					40					45			

Leu	Glu	Asp	Gly	Thr	Leu	His	Val	Thr	Glu	Xaa	Ser	Gly	Arg	Tyr	Ile
	50					55					60				

Pro	Arg	Lys	Pro	Phe	Pro	Asp	Phe	Xaa	Tyr	Lys	Arg	Ile	Lys	Ala	Arg
65					70					75					80

Ser	Arg	Leu	Ala	Glu	Leu	Arg	Gly	Val	Pro	Arg	Gly	Leu	Tyr	Asp	Gly
				85					90					95	

Pro	Val	Cys	Glu	Val	Ser	Val	Thr	Pro	Lys	Thr	Val	Thr	Pro	Ala	Ser
			100					105					110		

Ser	Ala	Lys	Thr	Ser	Pro	Ala	Lys	Gln	Gln	Ala	Pro	Pro	Val	Arg	Asn
		115					120						125		

Leu	His	Gln	Ser	Gly	Phe	Ser	Leu	Ser	Gly	Ala	Gln	Ile	Asp	Asp	Asn
	130						135					140			

Ile	Pro	Arg	Arg	Thr	Thr	Gln	Arg	Ile	Val	Ala	Pro	Pro	Gly	Gly	Arg
145					150					155					160

Ala	Asn	Ile	Thr	Ser	Leu	Gly
					165	

&lt;210&gt; 657

&lt;211&gt; 176

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

623

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (26)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 657

Xaa	Ser	Leu	Asn	Leu	Xaa	Lys	Leu	Ala	Leu	His	Arg	Gly	Gly	Gly	Arg
1				5					10					15	

Ser	Arg	Thr	Ser	Gly	Ser	Pro	Gly	Leu	Xaa	Glu	Phe	Gly	Thr	Ser	Ala
			20					25					30		

Val	Leu	Leu	Arg	Leu	Gly	Asp	Glu	Leu	Glu	Met	Ile	Arg	Pro	Ser	Val
		35					40					45			

Tyr	Arg	Asn	Val	Ala	Arg	Gln	Leu	His	Ile	Ser	Leu	Gln	Ser	Glu	Pro
	50					55					60				

Val	Val	Thr	Asp	Ala	Phe	Leu	Ala	Val	Ala	Gly	His	Ile	Phe	Ser	Ala
65					70					75					80

Gly	Ile	Thr	Trp	Gly	Lys	Val	Val	Ser	Leu	Tyr	Ala	Val	Ala	Ala	Gly
				85					90					95	

Leu	Ala	Val	Asp	Cys	Val	Arg	Gln	Ala	Gln	Pro	Ala	Met	Val	His	Ala
		100						105					110		

Leu	Val	Asp	Cys	Leu	Gly	Glu	Phe	Val	Arg	Lys	Thr	Leu	Ala	Thr	Trp
		115					120					125			

Leu	Arg	Arg	Arg	Gly	Gly	Trp	Thr	Asp	Val	Leu	Lys	Cys	Val	Val	Ser
	130					135					140				

Thr	Asp	Pro	Gly	Leu	Arg	Ser	His	Trp	Leu	Val	Ala	Ala	Leu	Cys	Ser
145					150					155					160

Phe	Gly	Arg	Phe	Leu	Lys	Ala	Ala	Phe	Phe	Val	Leu	Leu	Pro	Glu	Arg
			165						170					175	

&lt;210&gt; 658

&lt;211&gt; 137

&lt;212&gt; PRT

624

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (75)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (101)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (129)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (131)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 658

Gly	Pro	Val	Gly	Ser	Ser	Ser	Glu	Ala	Pro	Arg	Gly	Ala	Gly	Asp	Ala
1				5					10					15	

Gly	Met	Ala	Gly	Glu	Leu	Thr	Pro	Glu	Glu	Glu	Ala	Gln	Tyr	Lys	Lys
			20					25					30		

Ala	Phe	Ser	Ala	Val	Asp	Thr	Asp	Gly	Asn	Gly	Thr	Ile	Asn	Ala	Gln
		35					40					45			

Glu	Leu	Gly	Ala	Ala	Leu	Lys	Ala	Thr	Gly	Lys	Asn	Leu	Ser	Glu	Ala
	50					55					60				

Gln	Leu	Arg	Lys	Leu	Ile	Ser	Glu	Val	Asp	Xaa	Asp	Gly	Asp	Gly	Glu
65					70					75					80

Ile	Ser	Phe	Gln	Glu	Phe	Leu	Thr	Ala	Ala	Xaa	Lys	Ala	Arg	Ala	Gly
					85				90					95	



625

Leu Glu Asp Leu Xaa Val Ala Phe Arg Ala Phe Asp Gln Asp Gly Asp  
                   100                  105                  110

Gly His Ile Thr Val Asp Glu Leu Arg Arg Ala Xaa Ala Gly Leu Gly  
                   115                  120                  125

Xaa Leu Xaa Glu Ile Asp His Phe Gly  
                   130                  135

&lt;210&gt; 659

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 659

Pro Xaa Ser Arg Gln Asp Val Met Asp Ile Val Phe Ile Glu Gln Leu  
       1                  5                  10                  15

Ser Val Ile Thr Thr Ile Gly Val Tyr Asp Trp Xaa Gln Xaa Ser Asn  
                   20                  25                  30

Arg Ser

&lt;210&gt; 660

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 660

Asn Pro Ile Ser Pro Lys Asn Tyr Lys Lys Ile Ser Gln Ala Gln Ser  
       1                  5                  10                  15

626

Gln Leu Pro Val Ile Pro Ala Thr Gln Glu Ala Glu Ser Gly Glu Ser  
                   20                  25                  30

Leu Gly Pro Gly Ala Ala Glu Val Asn Ser Glu Pro Arg Leu His His  
                   35                  40                  45

Arg Thr Pro Ala Trp Ile Thr Lys  
           50                  55

<210> 661  
 <211> 41  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (29)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (31)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (39)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 661  
 Tyr Ile Gly Phe Val Ile Leu Val Phe Phe Ala Ser Ser Tyr Val Lys  
       1                  5                  10                  15

Glu Ile Asp Asn Lys Ile Leu Asn Asn Lys Lys Lys Xaa Lys Xaa Ser  
                   20                  25                  30

Ser Lys Gly Xaa Val Ala Xaa Ala Ile  
           35                  40

<210> 662  
 <211> 524

627

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (124)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (191)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 662

Cys	Glu	Ala	Trp	Arg	Gly	Arg	Ala	Asp	Pro	Gly	Gly	Gln	Ser	Cys	Leu
1				5					10					15	

Gln	Ala	Leu	Gln	Asn	Ser	Thr	Ala	Pro	Gln	His	Pro	Gly	Leu	His	Arg
			20					25					30		

Trp	Thr	Gly	Asp	Arg	Lys	Met	Pro	Pro	Arg	Arg	Asp	Arg	Gly	Cys	Asp
		35					40					45			

Pro	Val	Gly	Asn	Ile	Pro	Gln	Gly	Glu	Ser	Gly	Gly	Trp	Trp	Pro	Glu
	50					55						60			

Gly	Ala	Gly	Asp	Leu	Leu	Gly	Ala	Thr	Pro	Asp	Arg	Glu	Ser	Pro	Gln
65					70					75					80

Leu	Pro	Gly	Gln	Arg	Leu	Gln	Pro	His	Pro	Gln	Gln	Cys	Leu	His	Gly
				85					90					95	

Arg	Arg	Val	Arg	Gly	Pro	Ser	Trp	Arg	Val	Glu	Ala	Trp	Gly	Pro	Gly
			100					105					110		

Leu	His	Val	Phe	Gly	Pro	Gly	Gln	Arg	Trp	Gly	Xaa	Ser	Pro	Gln	Gly
		115					120						125		

Ile	Pro	Glu	Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser
	130					135					140				

Gly	Arg	Val	Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly
145					150					155					160

Cys	Leu	Ile	Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala
				165					170					175	

Leu	Arg	Asn	Pro	Gly	Lys	Ile	Pro	Lys	Thr	Leu	Val	Pro	His	Xaa	Cys
		180						185					190		

Lys	Leu	Val	Gly	Ala	Asn	Pro	Lys	Val	Arg	Pro	Asn	Pro	Ala	Arg	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

628

195	200	205
Leu Gln Asn Cys Arg Ala Pro Gly Gly Phe Met Ser Asn Arg Phe Val		
210	215	220
Glu Thr Asn Leu Phe Leu Glu Glu Ile Gln Ile Lys Glu Pro Ala Glu		
225	230	235 240
Lys Gln Lys Phe Phe Gln Glu Leu Ser Lys Ser Leu Asp Ala Phe Pro		
	245	250 255
Glu Asp Phe Cys Arg His Lys Val Leu Pro Gln Leu Leu Thr Ala Phe		
	260	265 270
Glu Phe Gly Asn Ala Gly Ala Val Val Leu Thr Pro Leu Phe Lys Val		
	275	280 285
Gly Lys Phe Leu Ser Ala Glu Glu Tyr Gln Gln Lys Ile Ile Pro Val		
	290	295 300
Val Val Lys Met Phe Ser Ser Thr Asp Arg Ala Met Arg Ile Arg Leu		
305	310	315 320
Leu Gln Gln Met Glu Gln Phe Ile Gln Tyr Leu Asp Glu Pro Thr Val		
	325	330 335
Asn Thr Gln Ile Phe Pro His Val Val His Gly Phe Leu Asp Thr Asn		
	340	345 350
Pro Ala Ile Arg Glu Gln Thr Val Lys Ser Met Leu Leu Leu Ala Pro		
	355	360 365
Lys Leu Asn Glu Ala Asn Leu Asn Val Glu Leu Met Lys His Phe Ala		
	370	375 380
Arg Leu Gln Ala Lys Asp Glu Gln Gly Pro Ile Arg Cys Asn Thr Thr		
385	390	395 400
Val Cys Leu Gly Lys Ile Gly Ser Tyr Leu Ser Ala Ser Thr Arg His		
	405	410 415
Arg Val Leu Thr Ser Ala Phe Ser Arg Ala Thr Arg Asp Pro Phe Ala		
	420	425 430
Pro Ser Arg Val Ala Gly Val Leu Gly Phe Ala Ala Thr His Asn Leu		
	435	440 445
Tyr Ser Met Asn Asp Cys Ala Gln Lys Ile Leu Pro Val Leu Cys Gly		
450	455	460
Leu Thr Val Asp Pro Glu Lys Ser Val Arg Asp Gln Ala Phe Lys Ala		

465					470					475					480	
Phe	Gly	Ala	Ser	Cys	Pro	Asn	Trp	Ser	Leu	Cys	Arg	Arg	Thr	Arg	Pro	
				485					490					495		
Ser	Trp	Arg	Lys	Trp	Arg	Arg	Met	Ser	Met	Gln	Pro	Pro	Ala	Leu	Ala	
			500					505					510			
Trp	Glu	Glu	Pro	Gln	Leu	Ala	Gly	Gln	Ala	Gly	Pro					
		515					520									

<210> 663

<211> 272

<212> PRT

<213> Homo sapiens

<220>

&lt;221&gt; SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 663

Pro	Thr	Leu	Asp	Ser	Ala	Arg	Ser	Leu	Ser	Met	Arg	Ala	Pro	Ser	Leu
1				5					10					15	
Thr	Pro	Ser	Ala	Ala	Pro	Leu	Ser	Thr	Trp	Pro	Leu	Xaa	Ile	Leu	Val
			20					25					30		
Arg	Ser	Gly	His	Asn	Arg	Ala	Val	Asp	Trp	Trp	Ser	Leu	Gly	Ala	Leu
		35					40					45			
Met	Tyr	Asp	Met	Leu	Thr	Gly	Ser	Pro	Pro	Phe	Thr	Ala	Glu	Asn	Arg
	50					55					60				
Lys	Lys	Thr	Met	Asp	Lys	Ile	Ile	Arg	Gly	Lys	Leu	Ala	Leu	Pro	Pro
65					70					75					80
Tyr	Leu	Thr	Pro	Asp	Ala	Arg	Asp	Leu	Val	Lys	Lys	Phe	Leu	Lys	Arg
				85					90					95	
Asn	Pro	Ser	Gln	Arg	Ile	Gly	Gly	Gly	Pro	Gly	Asp	Ala	Ala	Asp	Val
			100					105					110		
Gln	Arg	His	Pro	Phe	Phe	Arg	His	Met	Asn	Trp	Asp	Asp	Leu	Leu	Ala
		115					120					125			
Trp	Arg	Val	Asp	Pro	Pro	Phe	Arg	Pro	Cys	Leu	Gln	Ser	Glu	Glu	Asp
	130					135					140				

630

Val Ser Gln Phe Asp Thr Arg Phe Thr Arg Gln Thr Pro Val Asp Ser  
 145 150 155 160  
 Pro Asp Asp Thr Ala Leu Ser Glu Ser Ala Asn Gln Ala Phe Leu Gly  
 165 170 175  
 Phe Thr Tyr Val Ala Pro Ser Val Leu Asp Ser Ile Lys Glu Gly Phe  
 180 185 190  
 Ser Phe Gln Pro Lys Leu Arg Ser Pro Arg Arg Leu Asn Ser Ser Pro  
 195 200 205  
 Arg Ala Pro Val Ser Pro Leu Lys Phe Ser Pro Phe Glu Gly Phe Arg  
 210 215 220  
 Pro Ser Pro Ser Leu Pro Glu Pro Thr Glu Leu Pro Leu Pro Pro Leu  
 225 230 235 240  
 Leu Pro Pro Pro Pro Pro Ser Thr Thr Ala Pro Leu Pro Ile Arg Pro  
 245 250 255  
 Pro Ser Gly Thr Lys Lys Ser Lys Arg Gly Arg Gly Arg Pro Gly Arg  
 260 265 270

&lt;210&gt; 664

&lt;211&gt; 256

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 664

Gly Thr Arg Arg Glu Thr Trp Arg Pro Gly Ser Met Ala Gly Leu Glu  
 1 5 10 15  
 Leu Leu Ser Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Ala Gly Glu  
 20 25 30  
 Leu Arg Lys Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly  
 35 40 45  
 Ser Ala Tyr Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr  
 50 55 60

631

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Gly Pro His Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg
 65                               70                               75                               80

Ala Leu Val Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu
                               85                               90                               95

Arg Lys Xaa Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu
          100                               105                               110

Gln Leu Arg Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro
          115                               120                               125

Arg Ser Gln Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly
          130                               135                               140

Thr Tyr Ala Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala
          145                               150                               155                               160

Gly Ile Pro Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val
          165                               170                               175

Asp Gly Thr Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly
          180                               185                               190

Gly Pro Gln Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala
          195                               200                               205

Leu Leu Glu Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val
          210                               215                               220

Leu Glu Ala Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp
          225                               230                               235                               240

Arg Val Val Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp
          245                               250                               255

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&lt;210&gt; 665

&lt;211&gt; 241

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

632

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (122)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 665

Pro	Arg	Gly	Asp	Lys	Ala	Arg	Thr	Xaa	Pro	Pro	Ala	Ala	Ser	Ala	Arg
1				5					10					15	

Pro	Ser	Arg	Ser	Lys	Arg	Gly	Gly	Glu	Glu	Arg	Val	Leu	Glu	Lys	Glu
			20					25					30		

Glu	Glu	Glu	Asp	Asp	Asp	Glu	Asp	Glu	Asp	Glu	Glu	Asp	Asp	Val	Ser
		35				40						45			

Glu	Gly	Ser	Glu	Val	Pro	Glu	Ser	Asp	Arg	Pro	Ala	Gly	Ala	Gln	His
	50					55					60				

His	Gln	Leu	Asn	Gly	Glu	Arg	Gly	Pro	Gln	Ser	Ala	Lys	Glu	Arg	Val
65					70				75					80	

Lys	Glu	Trp	Thr	Pro	Cys	Gly	Pro	His	Gln	Gly	Gln	Asp	Glu	Gly	Arg
				85					90					95	

Gly	Pro	Ala	Pro	Gly	Ser	Gly	Thr	Arg	Gln	Val	Phe	Ser	Met	Ala	Ala
		100						105					110		

Met	Asn	Lys	Glu	Gly	Gly	Thr	Ala	Ser	Xaa	Ala	Thr	Gly	Pro	Asp	Ser
	115						120					125			

Pro	Ser	Pro	Val	Pro	Leu	Pro	Pro	Gly	Lys	Pro	Ala	Leu	Pro	Gly	Ala
	130					135					140				

Asp	Gly	Thr	Pro	Phe	Gly	Cys	Pro	Pro	Gly	Arg	Lys	Glu	Lys	Pro	Ser
145					150					155				160	

Asp	Pro	Val	Glu	Trp	Thr	Val	Met	Asp	Val	Val	Glu	Tyr	Phe	Thr	Glu
			165						170					175	

Ala	Gly	Phe	Pro	Glu	Gln	Ala	Thr	Val	Phe	Gln	Glu	Gln	Glu	Ile	Asp
		180						185					190		

Gly	Lys	Ser	Leu	Leu	Leu	Met	Gln	Arg	Thr	Asp	Val	Leu	Thr	Gly	Leu
	195						200					205			

Ser	Ile	Arg	Leu	Gly	Pro	Ala	Leu	Lys	Ile	Tyr	Glu	His	His	Ile	Lys
	210					215					220				

Val	Leu	Gln	Gln	Gly	His	Phe	Glu	Asp	Asp	Asp	Pro	Asp	Gly	Phe	Leu
225					230					235					240



633

Gly

<210> 666  
 <211> 131  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Val Thr Gly Gly Gly Ala Val Val Leu Gly Ala Glu Ser His Ala Ser  
           1                  5                  10                  15  
 Lys Asp Val Ala Ile Asp Met Met Asp Ser Arg Thr Ser Gln Gln Leu  
                   20                  25                  30  
 Gln Leu Ile Asp Glu Gln Asp Ser Tyr Ile Gln Ser Arg Ala Asp Thr  
           35                  40                  45  
 Met Gln Asn Ile Glu Ser Thr Ile Val Glu Leu Gly Ser Ile Phe Gln  
           50                  55                  60  
 Gln Leu Ala His Met Val Lys Glu Gln Glu Thr Ile Gln Arg Ile  
           65                  70                  75                  80  
 Asp Glu Asn Val Leu Gly Ala Gln Leu Asp Val Glu Ala Ala His Ser  
                   85                  90                  95  
 Glu Ile Leu Lys Tyr Phe Gln Ser Val Thr Ser Asn Arg Trp Leu Met  
           100                  105                  110  
 Val Lys Ile Phe Leu Ile Leu Ile Val Phe Phe Ile Ile Phe Val Val  
           115                  120                  125  
 Phe Leu Ala  
           130

<210> 667  
 <211> 652  
 <212> PRT  
 <213> Homo sapiens

<400> 667  
 Leu Ser Trp Asn Arg Tyr Thr Ser Val Ser Pro Leu His Arg Ser Leu  
           1                  5                  10                  15  
 Gln Leu Pro Pro Arg Val Ser Gly Val Arg Cys Asp Gln Cys Ala Arg

			20				25				30				
Gly	Phe	Ser	Gly	Ile	Phe	Pro	Ala	Cys	His	Pro	Cys	His	Ala	Cys	Phe
35							40				45				
Gly	Asp	Trp	Asp	Arg	Val	Val	Gln	Asp	Leu	Ala	Ala	Arg	Thr	Gln	Arg
50							55				60				
Leu	Glu	Gln	Arg	Ala	Gln	Glu	Leu	Gln	Gln	Thr	Gly	Val	Leu	Gly	Ala
65							70				75				
Phe	Glu	Ser	Ser	Phe	Trp	His	Met	Gln	Glu	Lys	Leu	Gly	Ile	Val	Gln
			85								90				
Gly	Ile	Val	Gly	Ala	Arg	Asn	Thr	Ser	Ala	Ala	Ser	Thr	Ala	Gln	Leu
			100				105				110				
Val	Glu	Ala	Thr	Glu	Glu	Leu	Arg	Arg	Glu	Ile	Gly	Glu	Ala	Thr	Glu
115							120				125				
His	Leu	Thr	Gln	Leu	Glu	Ala	Asp	Leu	Thr	Asp	Val	Gln	Asp	Glu	Asn
130							135				140				
Phe	Asn	Ala	Asn	His	Ala	Leu	Ser	Gly	Leu	Glu	Arg	Asp	Arg	Leu	Ala
145			150								155				
Leu	Asn	Leu	Thr	Leu	Arg	Gln	Leu	Asp	Gln	His	Leu	Asp	Leu	Leu	Lys
			165								170				
His	Ser	Asn	Phe	Leu	Gly	Ala	Tyr	Asp	Ser	Ile	Arg	His	Ala	His	Ser
			180				185				190				
Gln	Ser	Ala	Glu	Ala	Glu	Arg	Arg	Ala	Asn	Thr	Ser	Ala	Leu	Ala	Val
195							200				205				
Pro	Ser	Pro	Val	Ser	Asn	Ser	Ala	Ser	Ala	Arg	His	Arg	Thr	Glu	Ala
210							215				220				
Leu	Met	Asp	Ala	Gln	Lys	Glu	Asp	Phe	Asn	Ser	Lys	His	Met	Ala	Asn
225							230				235				
Gln	Arg	Ala	Leu	Gly	Lys	Leu	Ser	Ala	His	Thr	His	Thr	Leu	Ser	Leu
			245								250				
Thr	Asp	Ile	Asn	Glu	Leu	Val	Cys	Gly	Ala	Pro	Gly	Asp	Ala	Pro	Cys
			260				265				270				
Ala	Thr	Ser	Pro	Cys	Gly	Gly	Ala	Gly	Cys	Arg	Asp	Glu	Asp	Gly	Gln
275							280				285				
Pro	Arg	Cys	Gly	Gly	Leu	Ser	Cys	Asn	Gly	Ala	Ala	Ala	Thr	Ala	Asp

635

290	295	300
Leu Ala Leu Gly Arg Ala Arg His Thr Gln Ala Glu Leu Gln Arg Ala		
305	310	315 320
Leu Ala Glu Gly Gly Ser Ile Leu Ser Arg Val Ala Glu Thr Arg Arg		
	325	330 335
Gln Ala Ser Glu Ala Gln Gln Arg Ala Gln Ala Ala Leu Asp Lys Ala		
	340	345 350
Asn Ala Ser Arg Gly Gln Val Glu Gln Ala Asn Gln Glu Leu Gln Glu		
	355	360 365
Leu Ile Gln Ser Val Lys Asp Phe Leu Asn Gln Glu Gly Ala Asp Pro		
	370	375 380
Asp Ser Ile Glu Met Val Ala Thr Arg Val Leu Glu Leu Ser Ile Pro		
	385	390 395 400
Ala Ser Ala Glu Gln Ile Gln His Leu Ala Gly Ala Ile Ala Glu Arg		
	405	410 415
Val Arg Ser Leu Ala Asp Val Asp Ala Ile Leu Ala Arg Thr Val Gly		
	420	425 430
Asp Val Arg Arg Ala Glu Gln Leu Leu Gln Asp Ala Arg Arg Ala Arg		
	435	440 445
Ser Trp Ala Glu Asp Glu Lys Gln Lys Ala Glu Thr Val Gln Ala Ala		
	450	455 460
Leu Glu Glu Ala Gln Arg Ala Gln Gly Ile Ala Gln Gly Ala Ile Arg		
	465	470 475 480
Gly Ala Val Ala Asp Thr Arg Asp Thr Glu Gln Thr Leu Tyr Gln Val		
	485	490 495
Gln Glu Arg Met Ala Gly Ala Glu Arg Ala Leu Ser Ser Ala Gly Glu		
	500	505 510
Arg Ala Arg Gln Leu Asp Ala Leu Leu Glu Ala Leu Lys Leu Lys Arg		
	515	520 525
Ala Gly Asn Ser Leu Ala Ala Ser Thr Ala Glu Glu Thr Ala Gly Ser		
	530	535 540
Ala Gln Gly Arg Ala Gln Glu Ala Glu Gln Leu Leu Arg Gly Pro Leu		
	545	550 555 560
Gly Asp Gln Tyr Gln Thr Val Lys Ala Leu Ala Glu Arg Lys Ala Gln		

636

	565		570		575
Gly Val Leu Ala Ala Gln Ala Arg Ala Glu Gln Leu Arg Asp Glu Ala					
	580		585		590
Arg Asp Leu Leu Gln Ala Ala Gln Asp Lys Leu Gln Arg Leu Gln Glu					
	595		600		605
Leu Glu Gly Thr Tyr Glu Glu Asn Glu Arg Ala Leu Glu Ser Lys Ala					
	610		615		620
Ala Gln Leu Asp Gly Leu Glu Ala Arg Met Arg Ser Val Leu Gln Ala					
	625		630		635
					640
Ile Asn Leu Gln Val Gln Ile Tyr Asn Thr Cys Gln					
	645		650		

&lt;210&gt; 668

&lt;211&gt; 406

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 668

Gly Ala Val Arg Ser Ser Cys Ala Glu Leu Gln Ala Arg Val Met Ala
1 5 10 15

Ala Leu Arg Gln Pro Gln Val Ala Glu Cys Trp Pro Arg Pro Gly Glu
20 25 30

Pro Ser Gly Arg Ser Ser Gly Pro Ser Pro Ser Trp Pro Cys Gln Arg
35 40 45

Arg Ala Ala Cys Asn Leu Ile Gly Glu His Thr Asp Tyr Asn Gln Gly
50 55 60

Leu Val Leu Pro Met Ala Leu Glu Leu Met Thr Val Leu Val Gly Ser
65 70 75 80

Pro Arg Lys Xaa Gly Leu Val Ser Leu Leu Thr Thr Ser Glu Gly Ala
85 90 95

Asp Glu Pro Gln Arg Leu Gln Phe Pro Leu Pro Thr Ala Gln Arg Ser
100 105 110

637

Leu	Glu	Pro	Gly	Thr	Pro	Arg	Trp	Ala	Asn	Tyr	Val	Lys	Gly	Val	Ile	115	120	125	
Gln	Tyr	Tyr	Pro	Ala	Ala	Pro	Leu	Pro	Gly	Phe	Ser	Ala	Val	Val	Val	130	135	140	
Ser	Ser	Val	Pro	Leu	Gly	Gly	Gly	Leu	Ser	Ser	Ser	Ala	Ser	Leu	Glu	145	150	155	160
Val	Ala	Thr	Tyr	Thr	Phe	Leu	Gln	Gln	Leu	Cys	Pro	Asp	Ser	Gly	Thr	165	170	175	
Ile	Ala	Ala	Arg	Ala	Gln	Val	Cys	Gln	Gln	Ala	Glu	His	Ser	Phe	Ala	180	185	190	
Gly	Met	Pro	Cys	Gly	Ile	Met	Asp	Gln	Phe	Ile	Ser	Leu	Met	Gly	Gln	195	200	205	
Lys	Gly	His	Ala	Leu	Leu	Ile	Asp	Cys	Arg	Ser	Leu	Glu	Thr	Ser	Leu	210	215	220	
Val	Pro	Leu	Ser	Asp	Pro	Lys	Leu	Ala	Val	Leu	Ile	Thr	Asn	Ser	Asn	225	230	235	240
Val	Arg	His	Ser	Leu	Ala	Ser	Ser	Glu	Tyr	Pro	Val	Arg	Arg	Arg	Gln	245	250	255	
Cys	Glu	Glu	Val	Ala	Arg	Ala	Leu	Gly	Lys	Glu	Ser	Leu	Arg	Glu	Val	260	265	270	
Gln	Leu	Glu	Glu	Leu	Glu	Ala	Ala	Arg	Asp	Leu	Val	Ser	Lys	Glu	Gly	275	280	285	
Phe	Arg	Arg	Ala	Arg	His	Val	Val	Gly	Glu	Ile	Arg	Arg	Thr	Ala	Gln	290	295	300	
Ala	Ala	Ala	Ala	Leu	Arg	Arg	Gly	Asp	Tyr	Arg	Ala	Phe	Gly	Arg	Leu	305	310	315	320
Met	Val	Glu	Ser	His	Arg	Ser	Leu	Arg	Asp	Asp	Tyr	Glu	Val	Ser	Cys	325	330	335	
Pro	Glu	Leu	Asp	Gln	Leu	Val	Glu	Ala	Ala	Leu	Ala	Val	Pro	Gly	Val	340	345	350	
Tyr	Gly	Ser	Arg	Met	Thr	Gly	Gly	Gly	Phe	Gly	Gly	Cys	Thr	Val	Thr	355	360	365	
Leu	Leu	Glu	Ala	Ser	Ala	Ala	Pro	His	Ala	Met	Arg	His	Ile	Gln	Glu	370	375	380	

638

His Tyr Gly Gly Thr Ala Thr Phe Tyr Leu Ser Gln Ala Ala Asp Gly  
 385 390 395 400

Ala Lys Val Leu Cys Leu  
 405

&lt;210&gt; 669

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 669

Pro Glu Pro Thr Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly  
 1 5 10 15

Leu Val Leu Ala Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly  
 20 25 30

Leu Ser Ala Asn Gln Cys Ala Val Pro Ala Lys Asp Arg Val Asp Cys  
 35 40 45

Gly Tyr Pro His Val Thr Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys  
 50 55 60

Phe Asp Ser Arg Ile Pro Gly Val Pro Trp Cys Phe Lys Pro Leu Gln  
 65 70 75 80

Glu Ala Glu Cys Thr Phe  
 85

&lt;210&gt; 670

&lt;211&gt; 392

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 670

Gly Gly Gly Ala Arg Xaa Ser Pro Ala Thr Gln Pro Pro Pro Leu Leu  
 1 5 10 15

Pro Pro Ser Ala Thr Gly Pro Asp Ala Thr Val Gly Gly Pro Ala Pro  
 20 25 30

639

Thr Pro Leu Leu Pro Pro Ser Ala Thr Ala Ser Val Lys Met Glu Pro  
 35 40 45  
 Glu Asn Lys Tyr Leu Pro Glu Leu Met Ala Glu Lys Asp Ser Leu Asp  
 50 55 60  
 Pro Ser Phe Thr His Ala Met Gln Leu Leu Thr Ala Glu Ile Glu Lys  
 65 70 75 80  
 Ile Gln Lys Gly Asp Ser Lys Lys Asp Asp Glu Glu Asn Tyr Leu Asp  
 85 90 95  
 Leu Phe Ser His Lys Asn Met Lys Leu Lys Glu Arg Val Leu Ile Pro  
 100 105 110  
 Val Lys Gln Tyr Pro Lys Phe Asn Phe Val Gly Lys Ile Leu Gly Pro  
 115 120 125  
 Gln Gly Asn Thr Ile Lys Arg Leu Gln Glu Glu Thr Gly Ala Lys Ile  
 130 135 140  
 Ser Val Leu Gly Lys Gly Ser Met Arg Asp Lys Ala Lys Glu Glu Glu  
 145 150 155 160  
 Leu Arg Lys Gly Gly Asp Pro Lys Tyr Ala His Leu Asn Met Asp Leu  
 165 170 175  
 His Val Phe Ile Glu Val Phe Gly Pro Pro Cys Glu Ala Tyr Ala Leu  
 180 185 190  
 Met Ala His Ala Met Glu Glu Val Lys Lys Phe Leu Val Pro Asp Met  
 195 200 205  
 Met Asp Asp Ile Cys Gln Glu Gln Phe Leu Glu Leu Ser Tyr Leu Asn  
 210 215 220  
 Gly Val Pro Glu Pro Ser Arg Gly Arg Gly Val Pro Val Arg Gly Arg  
 225 230 235 240  
 Gly Ala Ala Pro Pro Pro Pro Pro Val Pro Arg Gly Arg Gly Val Gly  
 245 250 255  
 Pro Pro Arg Gly Ala Leu Val Arg Gly Thr Pro Val Arg Gly Ala Ile  
 260 265 270  
 Thr Arg Gly Ala Thr Val Thr Arg Gly Val Pro Pro Pro Pro Thr Val  
 275 280 285  
 Arg Gly Ala Pro Ala Pro Arg Ala Arg Thr Ala Gly Ile Gln Arg Ile  
 290 295 300

640

Pro Leu Pro Pro Pro Pro Ala Pro Glu Thr Tyr Glu Glu Tyr Gly Tyr  
 305 310 315 320

Asp Asp Thr Tyr Ala Glu Gln Ser Tyr Glu Gly Tyr Glu Gly Tyr Tyr  
 325 330 335

Ser Gln Ser Gln Gly Asp Ser Glu Tyr Tyr Asp Tyr Gly His Gly Glu  
 340 345 350

Val Gln Asp Ser Tyr Glu Ala Tyr Gly Gln Asp Asp Trp Asn Gly Thr  
 355 360 365

Arg Pro Ser Leu Lys Ala Pro Pro Ala Arg Pro Val Lys Gly Ala Tyr  
 370 375 380

Arg Glu His Pro Tyr Gly Arg Tyr  
 385 390

<210> 671  
 <211> 180  
 <212> PRT  
 <213> Homo sapiens

<400> 671  
 Arg Asn Met Ser Ser Phe Ser Arg Ala Pro Gln Gln Trp Ala Thr Phe  
 1 5 10 15

Ala Arg Ile Trp Tyr Leu Leu Asp Gly Lys Met Gln Pro Pro Gly Lys  
 20 25 30

Leu Ala Ala Met Ala Ser Ile Arg Leu Gln Gly Leu His Lys Pro Val  
 35 40 45

Tyr His Ala Leu Ser Asp Cys Gly Asp His Val Val Ile Met Asn Thr  
 50 55 60

Arg His Ile Ala Phe Ser Gly Asn Lys Trp Glu Gln Lys Val Tyr Ser  
 65 70 75 80

Ser His Thr Gly Tyr Pro Gly Gly Phe Arg Gln Val Thr Ala Ala Gln  
 85 90 95

Leu His Leu Arg Asp Pro Val Ala Ile Val Lys Leu Ala Ile Tyr Gly  
 100 105 110

Met Leu Pro Lys Asn Leu His Arg Arg Thr Met Met Glu Arg Leu His  
 115 120 125

Leu Phe Pro Asp Glu Tyr Ile Pro Glu Asp Ile Leu Lys Asn Leu Val



641

130                      135                      140  
 Glu Glu Leu Pro Gln Pro Arg Lys Ile Pro Lys Arg Leu Asp Glu Tyr  
 145                      150                      155                      160  
 Thr Gln Glu Glu Ile Asp Ala Phe Pro Arg Leu Trp Thr Pro Pro Glu  
                     165                      170                      175  
 Asp Tyr Arg Leu  
                     180

<210> 672  
 <211> 78  
 <212> PRT  
 <213> Homo sapiens

<400> 672  
 Glu Asn Tyr Gln Phe Thr Tyr Arg Arg Phe Phe Phe Pro Asn Ser Arg  
   1                      5                      10                      15  
 Phe His Pro Arg Pro Phe Glu Glu Leu Gln Thr Leu Ser Leu Arg Lys  
                     20                      25                      30  
 Glu Arg Gly Gln Pro Lys Ile Asn Ala Lys Phe Ala Tyr Thr Pro Ser  
                     35                      40                      45  
 His Ser Asp Val Leu Val Val Thr Tyr Tyr Gln Cys Gly Arg Glu Pro  
                     50                      55                      60  
 Lys Leu His Phe Arg Ser Lys Tyr Ser Leu Cys Arg Tyr Cys  
   65                      70                      75

<210> 673  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (113)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (132)  
 <223> Xaa equals any of the naturally occurring L-amino acids

642

&lt;400&gt; 673

Pro Thr Arg Pro Pro Leu Cys Arg Gly Ala Ala Ser Arg Gly Leu Leu  
1 5 10 15  
Cys Lys Trp Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr Arg Asp  
20 25 30  
Arg Ala Pro Arg Pro Ala Arg Gly Arg Arg Pro Gly Arg Leu Gly Ser  
35 40 45  
Thr Ser Ser Asn Ser Ser Cys Ser Ser Thr Glu Cys Pro Gly Glu Ala  
50 55 60  
Ile Pro His Pro Pro Gly Leu Pro Lys Ala Asp Pro Gly His Trp Trp  
65 70 75 80  
Ala Ser Phe Phe Phe Gly Lys Ser Thr Leu Pro Phe Met Ala Thr Val  
85 90 95  
Leu Glu Ser Ala Glu His Ser Glu Pro Pro Gln Ala Ser Ser Ser Met  
100 105 110  
Xaa Ala Cys Gly Leu Ala Arg Glu Ala Pro Arg Lys Gln Pro Gly Gly  
115 120 125  
Gln Ser Ser Xaa Ala Ser Ala Gly Pro Pro Ser  
130 135

&lt;210&gt; 674

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (58)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (193)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 674

643

Glu	Arg	Ala	His	Ser	Leu	Xaa	His	Gly	Val	Asp	Gly	Glu	Pro	Cys	Pro	1	5	10	15
Glu	Asp	Tyr	Lys	Tyr	Ile	Ser	Glu	Asn	Cys	Glu	Thr	Ser	Thr	Met	Asn	20	25	30	
Ile	Asp	Arg	Asn	Ile	Thr	His	Leu	Gln	His	Cys	Thr	Phe	Val	Asp	Asp	35	40	45	
Cys	Ser	Ser	Ser	Asn	Cys	Leu	Cys	Gly	Xaa	Phe	Ser	Ile	Arg	Cys	Trp	50	55	60	
Tyr	Asp	Lys	Asp	Gly	Arg	Leu	Leu	Gln	Glu	Phe	Asn	Lys	Ile	Glu	Pro	65	70	75	80
Pro	Leu	Ile	Phe	Glu	Cys	Asn	Gln	Ala	Cys	Ser	Cys	Trp	Arg	Asn	Cys	85	90	95	
Lys	Asn	Arg	Val	Val	Gln	Ser	Gly	Ile	Lys	Val	Arg	Leu	Gln	Leu	Tyr	100	105	110	
Arg	Thr	Ala	Lys	Met	Gly	Trp	Gly	Val	Arg	Ala	Leu	Gln	Thr	Ile	Pro	115	120	125	
Gln	Gly	Thr	Phe	Ile	Cys	Glu	Tyr	Val	Gly	Glu	Leu	Ile	Ser	Asp	Ala	130	135	140	
Glu	Ala	Asp	Val	Arg	Glu	Asp	Asp	Ser	Tyr	Leu	Phe	Asp	Leu	Asp	Asn	145	150	155	160
Lys	Asp	Gly	Glu	Val	Tyr	Cys	Ile	Asp	Ala	Arg	Tyr	Tyr	Gly	Asn	Ile	165	170	175	
Ser	Arg	Phe	Ile	Asn	His	Leu	Cys	Asp	Pro	Asn	Ile	Ile	Pro	Val	Arg	180	185	190	
Xaa	Phe	Met	Leu	His	Gln	Asp	Leu	Arg	Phe	Pro	Arg	Ile	Ala	Phe	Phe	195	200	205	
Ser	Ser	Arg	Asp	Ile	Arg	Thr	Gly	Glu	Glu	Leu	Gly	Phe	Asp	Tyr	Gly	210	215	220	
Asp	Arg	Phe	Trp	Asp	Ile	Lys	Ser	Lys	Tyr	Phe	Thr	Cys	Gln	Cys	Gly	225	230	235	240
Ser	Glu	Lys	Cys	Lys	His	Ser	Ala	Glu	Ala	Ile	Ala	Leu	Glu	Gln	Ser	245	250	255	
Arg	Leu	Ala	Arg	Leu	Asp	Pro	His	Pro	Glu	Leu	Leu	Pro	Glu	Leu	Gly	260	265	270	

644

Ser Leu Pro Pro Val Asn Thr  
275

<210> 675

<211> 405

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (393)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (394)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 675

Arg Asn Thr Leu Gly Arg Gly Thr Thr Ile Thr Leu Val Leu Lys Glu  
1 5 10 15

Glu Ala Ser Asp Tyr Leu Glu Leu Asp Thr Ile Lys Asn Leu Val Lys  
20 25 30

Lys Tyr Ser Gln Phe Ile Asn Phe Pro Ile Tyr Val Trp Ser Ser Lys  
35 40 45

Thr Glu Thr Val Glu Glu Pro Met Glu Glu Glu Glu Ala Ala Lys Glu  
50 55 60

Glu Lys Glu Glu Ser Asp Asp Glu Ala Ala Val Glu Glu Glu Glu Glu  
65 70 75 80

Glu Lys Lys Pro Lys Thr Lys Lys Val Glu Lys Thr Val Trp Asp Trp  
85 90 95

Glu Leu Met Asn Asp Ile Lys Pro Ile Trp Gln Arg Pro Ser Lys Glu  
100 105 110

Val Glu Glu Asp Glu Tyr Lys Ala Phe Tyr Lys Ser Phe Ser Lys Glu  
115 120 125

Ser Asp Asp Pro Met Ala Tyr Ile His Phe Thr Ala Glu Gly Glu Val  
130 135 140

Thr Phe Lys Ser Ile Leu Phe Val Pro Thr Ser Ala Pro Arg Gly Leu  
145 150 155 160

645

Phe Asp Glu Tyr Gly Ser Lys Lys Ser Asp Tyr Ile Lys Leu Tyr Val  
 165 170 175  
 Arg Arg Val Phe Ile Thr Asp Asp Phe His Asp Met Met Pro Lys Tyr  
 180 185 190  
 Leu Asn Phe Val Lys Gly Val Val Asp Ser Asp Asp Leu Pro Leu Asn  
 195 200 205  
 Val Ser Arg Glu Thr Leu Gln Gln His Lys Leu Leu Lys Val Ile Arg  
 210 215 220  
 Lys Lys Leu Val Arg Lys Thr Leu Asp Met Ile Lys Lys Ile Ala Asp  
 225 230 235 240  
 Asp Lys Tyr Asn Asp Thr Phe Trp Lys Glu Phe Gly Thr Asn Ile Lys  
 245 250 255  
 Leu Gly Val Ile Glu Asp His Ser Asn Arg Thr Arg Leu Ala Lys Leu  
 260 265 270  
 Leu Arg Phe Gln Ser Ser His His Pro Thr Asp Ile Thr Ser Leu Asp  
 275 280 285  
 Gln Tyr Val Glu Arg Met Lys Glu Lys Gln Asp Lys Ile Tyr Phe Met  
 290 295 300  
 Ala Gly Ser Ser Arg Lys Glu Ala Glu Ser Ser Pro Phe Val Glu Arg  
 305 310 315 320  
 Leu Leu Lys Lys Gly Tyr Glu Val Ile Tyr Leu Thr Glu Pro Val Asp  
 325 330 335  
 Glu Tyr Cys Ile Gln Ala Leu Pro Glu Phe Asp Gly Lys Arg Phe Gln  
 340 345 350  
 Asn Val Ala Lys Glu Gly Val Lys Phe Asp Glu Ser Glu Lys Thr Lys  
 355 360 365  
 Glu Ser Arg Glu Ala Val Glu Lys Glu Phe Glu Pro Leu Leu Asn Trp  
 370 375 380  
 Met Lys Asp Lys Ala Leu Lys Gly Xaa Xaa Leu Trp Glu Ile Leu Pro  
 385 390 395 400  
 Ile Cys Gly Lys Tyr  
 405

&lt;210&gt; 676

646

<211> 465  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (6)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 676

Asn	Asp	Ser	Leu	Xaa	Xaa	Lys	Ala	Gly	Thr	Pro	Ala	Gly	Asn	Arg	Xaa
1				5					10					15	

Gly	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Ala	Ala	Ala	Pro	Phe	Ala	Ala
			20					25					30		

Ala	Leu	Ala	Arg	Asp	Pro	Asn	Pro	Ala	Ser	Pro	Leu	Pro	Glu	His	Arg
		35					40					45			

Pro	Arg	Leu	His	Arg	Gly	Pro	Gly	Pro	Pro	Ala	Arg	Leu	Ala	Ala	Ala
	50					55					60				

Met	Ala	Asp	Pro	Lys	Tyr	Ala	Asp	Leu	Pro	Gly	Ile	Ala	Arg	Asn	Glu
65					70					75					80

Pro	Asp	Val	Tyr	Glu	Thr	Ser	Asp	Leu	Pro	Glu	Asp	Asp	Gln	Ala	Glu
				85					90					95	

Phe	Asp	Ala	Glu	Glu	Leu	Thr	Ser	Thr	Ser	Val	Glu	His	Ile	Ile	Val
			100					105						110	

Asn	Pro	Asn	Ala	Ala	Tyr	Asp	Lys	Phe	Lys	Asp	Lys	Arg	Val	Gly	Thr
		115					120					125			

Lys	Gly	Leu	Asp	Phe	Ser	Asp	Arg	Ile	Gly	Lys	Thr	Lys	Arg	Thr	Gly
	130					135					140				

Tyr	Glu	Ser	Gly	Glu	Tyr	Glu	Met	Leu	Gly	Glu	Gly	Leu	Gly	Val	Lys
145					150					155					160

Glu	Thr	Pro	Gln	Gln	Lys	Tyr	Gln	Arg	Leu	Leu	His	Glu	Val	Gln	Glu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

647

					165						170					175
Leu	Thr	Thr	Glu	Val	Glu	Lys	Ile	Lys	Thr	Thr	Val	Lys	Glu	Ser	Ala	
			180					185					190			
Thr	Glu	Glu	Lys	Leu	Thr	Pro	Val	Leu	Leu	Ala	Lys	Gln	Leu	Ala	Ala	
		195					200					205				
Leu	Lys	Gln	Gln	Leu	Val	Ala	Ser	His	Leu	Glu	Lys	Leu	Leu	Gly	Pro	
	210					215					220					
Asp	Ala	Ala	Ile	Asn	Leu	Thr	Asp	Pro	Asp	Gly	Ala	Leu	Ala	Lys	Arg	
225					230					235					240	
Leu	Leu	Leu	Gln	Leu	Glu	Ala	Thr	Lys	Asn	Ser	Lys	Gly	Gly	Ser	Gly	
			245						250					255		
Gly	Lys	Thr	Thr	Gly	Thr	Pro	Pro	Asp	Ser	Ser	Leu	Val	Thr	Tyr	Glu	
			260					265					270			
Leu	His	Ser	Arg	Pro	Glu	Gln	Asp	Lys	Phe	Ser	Gln	Ala	Ala	Lys	Val	
		275					280					285				
Ala	Glu	Leu	Glu	Lys	Arg	Leu	Thr	Glu	Leu	Glu	Thr	Ala	Val	Arg	Cys	
	290					295					300					
Asp	Gln	Asp	Ala	Gln	Asn	Pro	Leu	Ser	Ala	Gly	Leu	Gln	Gly	Ala	Cys	
305					310					315					320	
Leu	Met	Glu	Thr	Val	Glu	Leu	Leu	Gln	Ala	Lys	Val	Ser	Ala	Leu	Asp	
				325					330					335		
Leu	Ala	Val	Leu	Asp	Gln	Val	Glu	Ala	Arg	Leu	Gln	Ser	Val	Leu	Gly	
			340					345					350			
Lys	Val	Asn	Glu	Ile	Ala	Lys	His	Lys	Ala	Ser	Val	Glu	Asp	Ala	Asp	
		355					360					365				
Thr	Gln	Ser	Lys	Val	His	Gln	Leu	Tyr	Glu	Thr	Ile	Gln	Arg	Trp	Ser	
	370					375					380					
Pro	Ile	Ala	Ser	Thr	Leu	Pro	Glu	Leu	Val	Gln	Arg	Leu	Val	Thr	Ile	
385					390					395					400	
Lys	Gln	Leu	His	Glu	Gln	Ala	Met	Gln	Phe	Gly	Gln	Leu	Leu	Thr	His	
			405						410					415		
Leu	Asp	Thr	Thr	Gln	Gln	Met	Ile	Ala	Asn	Ser	Leu	Lys	Asp	Asn	Thr	
			420					425					430			
Thr	Leu	Leu	Thr	Gln	Val	Gln	Thr	Thr	Met	Arg	Glu	Asn	Leu	Ala	Thr	

648

435 440 445  
 Val Glu Gly Asn Phe Ala Ser Ile Asp Glu Arg Met Lys Lys Leu Gly  
 450 455 460

Lys  
 465

<210> 677  
 <211> 48  
 <212> PRT  
 <213> Homo sapiens

<400> 677  
 Ser Ser Phe Leu Asn Ser Asp Leu Gly Leu Ser Leu Ala Arg Asn Leu  
 1 5 10 15  
 Ala Phe Ser Phe Thr Thr Lys Glu Arg Asp Gln Lys Pro Leu Ile Phe  
 20 25 30  
 Asn Phe His Lys Met Leu Glu Val Tyr Ile Tyr Ile Tyr Ile Phe Leu  
 35 40 45

<210> 678  
 <211> 940  
 <212> PRT  
 <213> Homo sapiens

<400> 678  
 Val Leu Gly Glu Gly Ile Ser Phe Leu Leu Ser Pro Pro Leu Pro Thr  
 1 5 10 15  
 Pro Ser Ile Asn Ile Ile Leu Leu Lys Ile Leu Arg Cys Gln Ala Ala  
 20 25 30  
 Lys Val Glu Ser Ala Ile Ala Glu Gly Gly Ala Ser Arg Phe Ser Ala  
 35 40 45  
 Ser Ser Gly Gly Gly Gly Ser Arg Gly Ala Pro Gln His Tyr Pro Lys  
 50 55 60  
 Thr Ala Gly Asn Ser Glu Phe Leu Gly Lys Thr Pro Gly Gln Asn Ala  
 65 70 75 80



649

Gln	Lys	Trp	Ile	Pro	Ala	Arg	Ser	Thr	Arg	Arg	Asp	Asp	Asn	Ser	Ala	85	90	95	
Ala	Asn	Asn	Ser	Ala	Asn	Glu	Lys	Glu	Arg	His	Asp	Ala	Ile	Phe	Arg	100	105	110	
Lys	Val	Arg	Gly	Ile	Leu	Asn	Lys	Leu	Thr	Pro	Glu	Lys	Phe	Asp	Lys	115	120	125	
Leu	Cys	Leu	Glu	Leu	Leu	Asn	Val	Gly	Val	Glu	Ser	Lys	Leu	Ile	Leu	130	135	140	
Lys	Gly	Val	Ile	Leu	Leu	Ile	Val	Asp	Lys	Ala	Leu	Glu	Glu	Pro	Lys	145	150	155	160
Tyr	Ser	Ser	Leu	Tyr	Ala	Gln	Leu	Cys	Leu	Arg	Leu	Ala	Glu	Asp	Ala	165	170	175	
Pro	Asn	Phe	Asp	Gly	Pro	Ala	Ala	Glu	Gly	Gln	Pro	Gly	Gln	Lys	Gln	180	185	190	
Ser	Thr	Thr	Phe	Arg	Arg	Leu	Leu	Ile	Ser	Lys	Leu	Gln	Asp	Glu	Phe	195	200	205	
Glu	Asn	Arg	Thr	Arg	Asn	Val	Asp	Val	Tyr	Asp	Lys	Arg	Glu	Asn	Pro	210	215	220	
Leu	Leu	Pro	Glu	Glu	Glu	Glu	Gln	Arg	Ala	Ile	Ala	Lys	Ile	Lys	Met	225	230	235	240
Leu	Gly	Asn	Ile	Lys	Phe	Ile	Gly	Glu	Leu	Gly	Lys	Leu	Asp	Leu	Ile	245	250	255	
His	Glu	Ser	Ile	Leu	His	Lys	Cys	Ile	Lys	Thr	Leu	Leu	Glu	Lys	Lys	260	265	270	
Lys	Arg	Val	Gln	Leu	Lys	Asp	Met	Gly	Glu	Asp	Leu	Glu	Cys	Leu	Cys	275	280	285	
Gln	Ile	Met	Arg	Thr	Val	Gly	Pro	Arg	Leu	Asp	His	Glu	Arg	Ala	Lys	290	295	300	
Ser	Leu	Met	Asp	Gln	Tyr	Phe	Ala	Arg	Met	Cys	Ser	Leu	Met	Leu	Ser	305	310	315	320
Lys	Glu	Leu	Pro	Ala	Arg	Ile	Arg	Phe	Leu	Leu	Gln	Asp	Thr	Val	Glu	325	330	335	
Leu	Arg	Glu	His	His	Trp	Val	Pro	Arg	Lys	Ala	Phe	Leu	Asp	Asn	Gly	340	345	350	

650

Pro Lys Thr Ile Asn Gln Ile Arg Gln Asp Ala Val Lys Asp Leu Gly  
 355 360 365  
 Val Phe Ile Pro Ala Pro Met Ala Gln Gly Met Arg Ser Asp Phe Phe  
 370 375 380  
 Leu Glu Gly Pro Phe Met Pro Pro Arg Met Lys Met Asp Arg Asp Pro  
 385 390 395 400  
 Leu Gly Gly Leu Ala Asp Met Phe Gly Gln Met Pro Gly Ser Gly Ile  
 405 410 415  
 Gly Thr Gly Pro Gly Val Ile Gln Asp Arg Phe Ser Pro Thr Met Gly  
 420 425 430  
 Arg His Arg Ser Asn Gln Leu Phe Asn Gly His Gly Gly His Ile Met  
 435 440 445  
 Pro Pro Thr Gln Ser Gln Phe Gly Glu Met Gly Gly Lys Phe Met Lys  
 450 455 460  
 Ser Gln Gly Leu Ser Gln Leu Tyr His Asn Gln Ser Gln Gly Leu Leu  
 465 470 475 480  
 Ser Gln Leu Gln Gly Gln Ser Lys Asp Met Pro Pro Arg Phe Ser Lys  
 485 490 495  
 Lys Gly Gln Leu Asn Ala Asp Glu Ile Ser Leu Arg Pro Ala Gln Ser  
 500 505 510  
 Phe Leu Met Asn Lys Asn Gln Val Pro Lys Leu Gln Pro Gln Ile Thr  
 515 520 525  
 Met Ile Pro Pro Ser Ala Gln Pro Pro Arg Thr Gln Thr Pro Pro Leu  
 530 535 540  
 Gly Gln Thr Pro Gln Leu Gly Leu Lys Thr Asn Pro Pro Leu Ile Gln  
 545 550 555 560  
 Glu Lys Pro Ala Lys Thr Ser Lys Lys Pro Pro Pro Ser Lys Glu Glu  
 565 570 575  
 Leu Leu Lys Leu Thr Glu Thr Val Val Thr Glu Tyr Leu Asn Ser Gly  
 580 585 590  
 Asn Ala Asn Glu Ala Val Asn Gly Val Arg Glu Met Arg Ala Pro Lys  
 595 600 605  
 His Phe Leu Pro Glu Met Leu Ser Lys Val Ile Ile Leu Ser Leu Asp  
 610 615 620

651

Arg	Ser	Asp	Glu	Asp	Lys	Glu	Lys	Ala	Ser	Ser	Leu	Ile	Ser	Leu	Leu	625	630	635	640
Lys	Gln	Glu	Gly	Ile	Ala	Thr	Ser	Asp	Asn	Phe	Met	Gln	Ala	Phe	Leu	645	650	655	
Asn	Val	Leu	Asp	Gln	Cys	Pro	Lys	Leu	Glu	Val	Asp	Ile	Pro	Leu	Val	660	665	670	
Lys	Ser	Tyr	Leu	Ala	Gln	Phe	Ala	Ala	Arg	Ala	Ile	Ile	Ser	Glu	Leu	675	680	685	
Val	Ser	Ile	Ser	Glu	Leu	Ala	Gln	Pro	Leu	Glu	Ser	Gly	Thr	His	Phe	690	695	700	
Pro	Leu	Phe	Leu	Leu	Cys	Leu	Gln	Gln	Leu	Ala	Lys	Leu	Gln	Asp	Arg	705	710	715	720
Glu	Trp	Leu	Thr	Glu	Leu	Phe	Gln	Gln	Ser	Lys	Val	Asn	Met	Gln	Lys	725	730	735	
Met	Leu	Pro	Glu	Ile	Asp	Gln	Asn	Lys	Asp	Arg	Met	Leu	Glu	Ile	Leu	740	745	750	
Glu	Gly	Lys	Gly	Leu	Ser	Phe	Leu	Phe	Pro	Leu	Leu	Lys	Leu	Glu	Lys	755	760	765	
Glu	Leu	Leu	Lys	Gln	Ile	Lys	Leu	Asp	Pro	Ser	Pro	Gln	Thr	Ile	Tyr	770	775	780	
Lys	Trp	Ile	Lys	Asp	Asn	Ile	Ser	Pro	Lys	Leu	His	Val	Asp	Lys	Gly	785	790	795	800
Phe	Val	Asn	Ile	Leu	Met	Thr	Ser	Phe	Leu	Gln	Tyr	Ile	Ser	Ser	Glu	805	810	815	
Val	Asn	Pro	Pro	Ser	Asp	Glu	Thr	Asp	Ser	Ser	Ser	Ala	Pro	Ser	Lys	820	825	830	
Glu	Gln	Leu	Glu	Gln	Glu	Lys	Gln	Leu	Leu	Leu	Ser	Phe	Lys	Pro	Val	835	840	845	
Met	Gln	Lys	Phe	Leu	His	Asp	His	Val	Asp	Leu	Gln	Val	Ser	Ala	Leu	850	855	860	
Tyr	Ala	Leu	Gln	Val	His	Cys	Tyr	Asn	Ser	Asn	Phe	Pro	Lys	Gly	Met	865	870	875	880
Leu	Leu	Arg	Phe	Phe	Val	His	Phe	Tyr	Asp	Met	Glu	Ile	Ile	Glu	Glu	885	890	895	

652

Glu Ala Phe Leu Ala Trp Lys Glu Asp Ile Thr Gln Glu Phe Pro Gly  
                   900                  905                  910

Lys Gly Lys Ala Leu Phe Gln Val Asn Gln Trp Leu Thr Trp Leu Glu  
                   915                  920                  925

Thr Ala Glu Glu Glu Glu Ser Glu Glu Glu Ala Asp  
           930                  935                  940

<210> 679  
 <211> 212  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (160)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (172)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 679  
 Ser Trp Lys Glu Glu Glu Xaa Lys Pro His Leu Gln Gly Lys Pro Gly  
   1                  5                  10                  15

Arg Pro Leu Ser Pro Ala Asn Val Pro Ala Leu Pro Gly Glu Thr Val  
                   20                  25                  30

Thr Ser Pro Val Arg Leu His Pro Asp Tyr Leu Ser Pro Glu Glu Ile  
                   35                  40                  45

Gln Arg Gln Leu Gln Asp Ile Glu Arg Arg Leu Asp Ala Leu Glu Leu  
           50                  55                  60

Arg Gly Val Glu Leu Glu Lys Arg Leu Arg Ala Ala Glu Gly Asp Asp  
   65                  70                  75                  80

Ala Glu Asp Ser Leu Met Val Asp Trp Phe Trp Leu Ile His Glu Lys  
                   85                  90                  95

Gln Leu Leu Leu Arg Gln Glu Ser Glu Leu Met Tyr Lys Ser Lys Ala

653

100	105	110
Gln Arg Leu Glu Glu Gln Gln Leu Asp Ile Glu Gly Glu Leu Arg Arg		
115	120	125
Leu Met Ala Lys Pro Glu Ala Leu Lys Ser Leu Gln Glu Arg Arg Arg		
130	135	140
Glu Gln Glu Leu Leu Glu Gln Tyr Val Ser Thr Val Asn Asp Arg Xaa		
145	150	155
Asp Ile Val Asp Ser Leu Asp Glu Asp Arg Leu Xaa Glu Gln Glu Glu		
165	170	175
Asp Gln Met Leu Arg Asp Met Ile Glu Lys Leu Gly Leu Gln Arg Lys		
180	185	190
Lys Ser Lys Phe Arg Leu Ser Lys Ile Trp Ser Pro Lys Ser Lys Ser		
195	200	205
Ser Pro Ser Gln		
210		

&lt;210&gt; 680

&lt;211&gt; 412

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (172)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (404)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 680

Val Ala Val Glu Leu Gly Ser Leu Arg Gly Gly Thr Met Ala Ser Glu
1                      5                      10                      15

Lys Pro Leu Ala Ala Val Thr Cys Thr Ala Pro Val Asn Ile Ala Val
20                      25                      30

Ile Lys Tyr Trp Gly Lys Arg Asp Glu Glu Leu Val Leu Pro Ile Asn
35                      40                      45

Ser Ser Leu Ser Val Thr Leu His Gln Asp Gln Leu Lys Thr Thr Thr
---

654

50					55					60					
Thr	Ala	Val	Ile	Ser	Lys	Asp	Phe	Thr	Glu	Asp	Arg	Ile	Trp	Leu	Asn
65					70					75				80	
Gly	Arg	Glu	Glu	Asp	Val	Gly	Gln	Pro	Arg	Leu	Gln	Ala	Cys	Leu	Arg
				85					90					95	
Glu	Ile	Arg	Cys	Leu	Ala	Arg	Lys	Arg	Arg	Asn	Ser	Arg	Asp	Gly	Asp
			100					105					110		
Pro	Leu	Pro	Ser	Ser	Leu	Ser	Cys	Lys	Val	His	Val	Ala	Ser	Val	Asn
			115					120					125		
Asn	Phe	Pro	Thr	Ala	Ala	Gly	Leu	Ala	Ser	Ser	Ala	Ala	Gly	Tyr	Ala
			130				135					140			
Cys	Leu	Ala	Tyr	Thr	Leu	Ala	Arg	Val	Tyr	Gly	Val	Glu	Ser	Asp	Leu
145					150					155					160
Ser	Glu	Val	Ala	Arg	Arg	Gly	Ser	Gly	Ser	Ala	Xaa	Arg	Ser	Leu	Tyr
				165					170					175	
Gly	Gly	Phe	Val	Glu	Trp	Gln	Met	Gly	Glu	Gln	Ala	Asp	Gly	Lys	Asp
			180					185					190		
Ser	Ile	Ala	Arg	Gln	Val	Ala	Pro	Glu	Ser	His	Trp	Pro	Glu	Leu	Arg
			195				200					205			
Val	Leu	Ile	Leu	Val	Val	Ser	Ala	Glu	Lys	Lys	Leu	Thr	Gly	Ser	Thr
			210				215					220			
Val	Gly	Met	Arg	Ala	Ser	Val	Glu	Thr	Ser	Pro	Leu	Leu	Arg	Phe	Arg
225					230					235					240
Ala	Glu	Ser	Val	Val	Pro	Ala	Arg	Met	Ala	Glu	Met	Ala	Arg	Cys	Ile
				245					250					255	
Arg	Glu	Arg	Asp	Phe	Pro	Ser	Phe	Ala	Gln	Leu	Thr	Met	Lys	Asp	Ser
			260					265					270		
Asn	Gln	Phe	His	Ala	Thr	Cys	Leu	Asp	Thr	Phe	Pro	Pro	Ile	Ser	Tyr
			275				280					285			
Leu	Asn	Ala	Ile	Ser	Trp	Arg	Ile	Ile	His	Leu	Val	His	Arg	Phe	Asn
			290				295					300			
Ala	His	His	Gly	Asp	Thr	Lys	Val	Ala	Tyr	Thr	Phe	Asp	Ala	Gly	Pro
305					310					315					320
Asn	Ala	Val	Ile	Phe	Thr	Leu	Asp	Asp	Thr	Val	Ala	Glu	Phe	Val	Ala

655

325								330				335			
Ala	Val	Trp	His	Gly	Phe	Pro	Pro	Gly	Ser	Asn	Gly	Asp	Thr	Phe	Leu
340				345				350							
Lys	Gly	Leu	Gln	Val	Arg	Pro	Ala	Pro	Leu	Ser	Ala	Glu	Leu	Gln	Ala
355				360				365							
Ala	Leu	Ala	Met	Glu	Pro	Thr	Pro	Gly	Gly	Val	Lys	Tyr	Ile	Ile	Val
370				375				380							
Thr	Gln	Val	Gly	Pro	Gly	Pro	Gln	Ile	Leu	Asp	Asp	Pro	Cys	Ala	His
385				390				395				400			
Leu	Leu	Gly	Xaa	Asp	Gly	Leu	Pro	Lys	Pro	Ala	Ala				
405				410											

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<210> 681
<211> 61
<212> PRT
<213> Homo sapiens
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```

<400> 681
Lys Lys Thr Arg His Leu Ser Lys Ile Leu Cys Gly Lys Met Thr Val
 1             5             10             15
Asn Lys Met Arg Val Ser Gly Pro Phe Val Leu Leu Ser Phe Phe Asp
      20             25             30
Tyr Lys Phe Leu Leu Thr His Thr Ile Met Ser Ala Asn Pro Leu Leu
      35             40             45
Pro Arg Glu Arg Asn Cys Ala Pro Ser Val Leu Leu Pro
      50             55             60

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```
<210> 682
<211> 243
<212> PRT
<213> Homo sapiens
```

```
<400> 682
Ser Ala Pro Pro Pro Pro Arg Arg Lys Thr Ala Pro Pro Ala His Arg
   1                   5               10                  15
Gln Arg Pro Pro Pro Gln Ser Pro Thr Ala Thr Gly Leu Gly Pro Ala
          20                25                 30
```

656

Ala Arg Ser Cys Leu Pro Gln Pro Pro Ser Arg Gly Pro Gln Pro Pro  
                   35                                  40                                  45  
 Pro Thr Leu Pro His Gly Pro Gly Ala Met Ser Glu Leu Glu Gln Leu  
                   50                                  55                                  60  
 Arg Gln Glu Ala Glu Gln Leu Arg Asn Gln Ile Arg Asp Ala Arg Lys  
                   65                                  70                                  75                                  80  
 Ala Cys Gly Asp Ser Thr Leu Thr Gln Ile Thr Ala Gly Leu Asp Pro  
                                   85                                  90                                  95  
 Val Gly Arg Ile Gln Met Arg Thr Arg Arg Thr Leu Arg Gly His Leu  
                                   100                                  105                                  110  
 Ala Lys Ile Tyr Ala Met His Trp Gly Thr Asp Ser Arg Leu Leu Val  
                   115                                  120                                  125  
 Ser Ala Ser Gln Asp Gly Lys Leu Ile Ile Trp Asp Ser Tyr Thr Thr  
                   130                                  135                                  140  
 Asn Lys Val His Ala Ile Pro Leu Arg Ser Ser Trp Val Met Thr Cys  
                   145                                  150                                  155                                  160  
 Ala Tyr Ala Pro Ser Gly Asn Phe Val Ala Cys Gly Gly Leu Asp Asn  
                                   165                                  170                                  175  
 Ile Cys Ser Ile Tyr Ser Leu Lys Thr Arg Glu Ala Thr Ser Gly Ser  
                   180                                  185                                  190  
 Ala Gly Ser Cys Leu Ala Thr Leu Gly Thr Cys Arg Val Ala Ala Ser  
                   195                                  200                                  205  
 Trp Met Thr Thr Lys Ser Ser Pro Ala Leu Gly Ile Pro Pro Val Pro  
                   210                                  215                                  220  
 Cys Gly Thr Leu Arg Gln Ala Ser Arg Gln Trp Val Leu Leu Asp Thr  
                   225                                  230                                  235                                  240  
 Val Gly Met

&lt;210&gt; 683

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE



657

&lt;222&gt; (133)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 683

Asp Leu Glu Gly Asp Ala Gly Tyr Thr Gly Gly Leu Arg Gln Gly His  
 1 5 10 15  
 Ala Gly Gly Ala Gly Glu Leu Ala Arg Thr Leu Ala Leu Lys Pro Thr  
 20 25 30  
 Ser Leu Glu Leu Phe Arg Thr Lys Val Asn Ala Leu Thr Tyr Gly Glu  
 35 40 45  
 Val Leu Arg Leu Arg Gln Thr Glu Arg Leu His Gln Glu Gly Thr Leu  
 50 55 60  
 Ala Pro Pro Ile Leu Glu Leu Arg Glu Lys Leu Lys Pro Glu Leu Met  
 65 70 75 80  
 Gly Leu Ile Arg Gln Gln Arg Leu Leu Arg Leu Cys Glu Gly Thr Leu  
 85 90 95  
 Phe Arg Lys Ile Ser Ser Arg Arg Arg Gln Asp Lys Leu Trp Phe Cys  
 100 105 110  
 Cys Leu Ser Pro Asn His Lys Leu Leu Gln Tyr Gly Asp Met Glu Glu  
 115 120 125  
 Gly Ala Ser Ala Xaa Pro Trp Arg Val Cys Pro Ser Asn Ser Leu Trp  
 130 135 140  
 Pro Thr  
 145

&lt;210&gt; 684

&lt;211&gt; 300

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 684

Val Tyr Ser Cys Gly Phe Gln Val Gln Ser Trp Ser Pro Arg Trp Ile  
 1 5 10 15  
 Trp Val Thr Thr Lys Ser Lys Ile Gly Ala Pro Arg Ser Ser Phe Cys  
 20 25 30  
 Trp His Arg Leu Pro Ser Thr Ser Gln Leu His Leu Cys Pro Ala Glu  
 35 40 45

658

Gly Glu Ala Pro Ser Ala Gly Glu Ala Ala Pro Arg Ala Pro Thr Gly  
 50 55 60

Ser Glu Pro Lys Pro Gly Ala Leu Pro Trp Gly Pro Arg Ala Pro Asp  
 65 70 75 80

Ser Glu Gly Gly Gly Gly Ala Gly Ala Ala Asp Pro Ala Ala Asn Ala  
 85 90 95

Gly His Gly Ala Ser Ser Glu Ala Glu Cys Gly Cys Gln Arg Thr Leu  
 100 105 110

Arg Pro Met Pro Ser Thr Pro Gly Pro Gly Ala Ala Ala Val Arg Ala  
 115 120 125

Leu Gly Gln Leu Phe His Ile Ala Cys Phe Thr Cys His Gln Cys Ala  
 130 135 140

Gln Gln Leu Gln Gly Gln Gln Phe Tyr Ser Leu Glu Gly Ala Pro Tyr  
 145 150 155 160

Cys Glu Gly Cys Tyr Thr Asp Thr Leu Glu Lys Cys Asn Thr Cys Gly  
 165 170 175

Glu Pro Ile Thr Asp Arg Met Leu Arg Ala Thr Gly Lys Ala Tyr His  
 180 185 190

Pro His Cys Phe Thr Cys Val Val Cys Ala Arg Pro Leu Glu Gly Thr  
 195 200 205

Ser Phe Ile Val Asp Gln Ala Asn Arg Pro His Cys Val Pro Asp Tyr  
 210 215 220

His Lys Gln Tyr Ala Pro Arg Cys Ser Val Cys Ser Glu Pro Ile Met  
 225 230 235 240

Pro Glu Pro Gly Arg Asp Glu Thr Val Arg Val Val Ala Leu Asp Lys  
 245 250 255

Asn Phe His Met Lys Cys Tyr Lys Cys Glu Asp Cys Gly Lys Pro Leu  
 260 265 270

Ser Ile Glu Ala Asp Asp Asn Gly Cys Phe Pro Leu Asp Gly His Val  
 275 280 285

Leu Cys Arg Lys Cys His Thr Ala Arg Ala Gln Thr  
 290 295 300

&lt;210&gt; 685

659

<211> 130  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (61)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 685  
 Ile Arg His Glu Asp Cys Pro Thr Pro Ser Gln Cys Val Val Ala Arg  
           1                  5                  10                  15  
 Thr Leu Gly Lys Gln Gln Thr Val Met Ala Ile Ala Thr Lys Ile Ala  
                   20                  25                  30  
 Leu Gln Met Asn Cys Lys Met Gly Gly Glu Leu Trp Arg Val Asp Ile  
                   35                  40                  45  
 Pro Leu Lys Leu Val Met Ile Val Gly Ile Asp Cys Xaa His Asp Met  
           50                  55                  60  
 Thr Ala Gly Arg Arg Ser Ile Ala Gly Phe Val Ala Ser Ile Asn Glu  
           65                  70                  75                  80  
 Gly Met Thr Arg Trp Phe Ser Arg Cys Ile Phe Gln Asp Arg Gly Gln  
                   85                  90                  95  
 Glu Leu Val Asp Gly Leu Lys Val Cys Leu Gln Ala Ala Leu Arg Ala  
                   100                  105                  110  
 Trp Asn Ser Cys Asn Glu Tyr Met Pro Ser Arg Ile Ile Val Tyr Arg  
           115                  120                  125  
 Val Ala  
       130

<210> 686  
 <211> 207  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (84)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 686  
 Ile Tyr Gln Val Tyr Asn Ala Leu Gln Glu Lys Val Gln Ala Val Cys

660

1	5	10	15
Ala Asp Val Glu Lys Ser Glu Arg Val Val Glu Ser Cys Gln Ala Glu	20	25	30
Val Asn Lys Leu Arg Arg Gln Ile Thr Gln Arg Lys Asn Glu Lys Glu	35	40	45
Gln Glu Arg Arg Leu Gln Gln Ala Val Leu Ser Arg Gln Met Pro Ser	50	55	60
Glu Ser Leu Asp Pro Ala Phe Ser Pro Arg Met Pro Ser Ser Gly Phe	65	70	75
Ala Ala Glu Xaa Arg Ser Thr Leu Gly Asp Ala Glu Ala Ser Asp Pro	85	90	95
Pro Pro Pro Tyr Ser Asp Phe His Pro Asn Asn Gln Glu Ser Thr Leu	100	105	110
Ser His Ser Arg Met Glu Arg Ser Val Phe Met Pro Arg Pro Gln Ala	115	120	125
Val Gly Ser Ser Asn Tyr Ala Ser Thr Ser Ala Gly Leu Lys Tyr Pro	130	135	140
Gly Ser Gly Ala Asp Leu Pro Pro Pro Gln Arg Ala Ala Gly Asp Ser	145	150	155
Gly Glu Asp Ser Asp Asp Ser Asp Tyr Glu Asn Leu Ile Asp Pro Thr	165	170	175
Glu Pro Ser Asn Ser Glu Tyr Ser His Ser Lys Asp Ser Arg Pro Met	180	185	190
Ala His Pro Asp Glu Asp Pro Arg Asn Thr Gln Thr Ser Gln Ile	195	200	205

&lt;210&gt; 687

&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 687

Ala Arg Ala Gly Glu Glu Gly Val Val Thr Arg Trp Arg His Arg Leu	1	5	10	15
Gly Gln Gly Ala Cys Pro Trp Asp Arg Ser Arg Pro Met Glu Pro Pro	20	25	30	

661

Gly Arg Ser Ser Arg Ser Thr Ala Ser His Thr Leu His Gln Tyr Cys  
35 40 45  
Cys Pro Thr Gln Val Leu Asp Ser Met Lys Leu Thr Pro Ser Gly Arg  
50 55 60  
Leu Ala Glu Ser Arg Glu Glu Glu Glu Glu Glu Thr Glu Glu Glu  
65 70 75 80  
Glu Glu Glu Asp Ala His Gln Phe Cys Cys Pro Ala Ser Glu Cys Ser  
85 90 95  
Ser Pro Ser Ser Arg  
100

<210> 688  
<211> 62  
<212> PRT  
<213> Homo sapiens

<400> 688  
Glu Arg Asn Ala Asp Pro Pro Asp Val Ser Leu Gly Lys Ala Val Asn  
1 5 10 15  
Gln Leu Ile Phe Ile Glu Asp Leu Leu Cys Pro Leu His Arg Val Ala  
20 25 30  
Ser Val Arg Glu Ser Trp Phe Phe Pro Arg Asn Thr Asp Phe Leu Ser  
35 40 45  
Gly Arg Leu His Val Phe Ile Tyr Phe His His Ser Arg Phe  
50 55 60

<210> 689  
<211> 549  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (7)

662

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 689

Xaa	Arg	Trp	Ala	Cys	Gly	Xaa	Leu	Leu	Leu	Leu	Val	Arg	Gly	Gln	Gly	1	5	10	15
Gln	Asp	Ser	Ala	Ser	Pro	Ile	Arg	Thr	Thr	His	Thr	Gly	Gln	Val	Leu	20	25	30	
Gly	Ser	Leu	Val	His	Val	Lys	Gly	Ala	Asn	Ala	Gly	Val	Gln	Thr	Phe	35	40	45	
Leu	Gly	Ile	Pro	Phe	Ala	Lys	Pro	Pro	Leu	Gly	Pro	Leu	Arg	Phe	Ala	50	55	60	
Pro	Pro	Glu	Pro	Pro	Glu	Ser	Trp	Ser	Gly	Val	Arg	Asp	Gly	Thr	Thr	65	70	75	80
His	Pro	Ala	Met	Cys	Leu	Gln	Asp	Leu	Thr	Ala	Val	Glu	Ser	Glu	Phe	85	90	95	
Leu	Ser	Gln	Phe	Asn	Met	Thr	Phe	Pro	Ser	Asp	Ser	Met	Ser	Glu	Asp	100	105	110	
Cys	Leu	Tyr	Leu	Ser	Ile	Tyr	Thr	Pro	Ala	His	Ser	His	Glu	Gly	Ser	115	120	125	
Asn	Leu	Pro	Val	Met	Val	Trp	Ile	His	Gly	Gly	Ala	Leu	Val	Phe	Gly	130	135	140	
Met	Ala	Ser	Leu	Tyr	Asp	Gly	Ser	Met	Leu	Ala	Ala	Leu	Glu	Asn	Val	145	150	155	160
Val	Val	Val	Ile	Ile	Gln	Tyr	Arg	Leu	Gly	Val	Leu	Gly	Phe	Phe	Ser	165	170	175	
Thr	Gly	Asp	Lys	His	Ala	Thr	Gly	Asn	Trp	Gly	Tyr	Leu	Asp	Gln	Val	180	185	190	
Ala	Ala	Leu	Arg	Trp	Val	Gln	Gln	Asn	Ile	Ala	His	Phe	Gly	Gly	Asn	195	200	205	
Pro	Asp	Arg	Val	Thr	Ile	Phe	Gly	Glu	Ser	Ala	Gly	Gly	Thr	Ser	Val	210	215	220	
Ser	Ser	Leu	Val	Val	Ser	Pro	Ile	Ser	Gln	Gly	Leu	Phe	His	Gly	Ala	225	230	235	240
Ile	Met	Glu	Ser	Gly	Val	Ala	Leu	Leu	Pro	Gly	Leu	Ile	Ala	Ser	Ser	245	250	255	

663

Ala Asp Val	Ile Ser Thr	Val Val	Ala Asn Leu	Ser Ala	Cys Asp Gln
260			265		270
Val Asp Ser	Glu Ala Leu	Val Gly Cys	Leu Arg Gly	Lys Ser	Lys Glu
275		280		285	
Glu Ile Leu	Ala Ile Asn	Lys Pro Phe	Lys Met Ile	Pro Gly	Val Val
290		295		300	
Asp Gly Val	Phe Leu Pro	Arg His Pro	Gln Glu Leu	Leu Ala	Ser Ala
305		310		315	320
Asp Phe Gln	Pro Val Pro	Ser Ile Val	Gly Val Asn	Asn Asn	Glu Phe
	325		330		335
Gly Trp Leu	Ile Pro Lys	Val Met Arg	Ile Tyr Asp	Thr Gln	Lys Glu
	340		345		350
Met Asp Arg	Glu Ala Ser	Gln Ala Ala	Leu Gln Lys	Met Leu	Thr Leu
	355		360		365
Leu Met Leu	Pro Pro Thr	Phe Gly Asp	Leu Leu Arg	Glu Glu	Tyr Ile
	370		375		380
Gly Asp Asn	Gly Asp Pro	Gln Thr Leu	Gln Ala Gln	Phe Gln	Glu Met
385		390		395	400
Met Ala Asp	Ser Met Phe	Val Ile Pro	Ala Leu Gln	Val Ala	His Phe
	405		410		415
Gln Cys Ser	Arg Ala Pro	Val Tyr Phe	Tyr Glu Phe	Gln His	Gln Pro
	420		425		430
Ser Trp Leu	Lys Asn Ile	Arg Pro Pro	His Met Lys	Ala Asp	His Gly
	435		440		445
Asp Glu Leu	Pro Phe Val	Phe Arg Ser	Phe Phe Gly	Gly Asn	Tyr Ile
	450		455		460
Lys Phe Thr	Glu Glu Glu	Glu Gln Leu	Ser Arg Lys	Met Met	Lys Tyr
465		470		475	480
Trp Ala Asn	Phe Ala Arg	Asn Gly Asn	Pro Asn Gly	Glu Gly	Leu Pro
	485		490		495
His Trp Pro	Leu Phe Asp	Gln Glu Glu	Gln Tyr Leu	Gln Leu	Asn Leu
	500		505		510
Gln Pro Ala	Val Gly Arg	Ala Leu Lys	Ala His Arg	Leu Gln	Phe Trp
	515		520		525

664

Lys Lys Ala Leu Pro Gln Lys Ile Gln Glu Leu Glu Glu Pro Glu Glu  
 530 535 540

Arg His Thr Glu Leu  
 545

<210> 690  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (36)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (46)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (50)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (85)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 690  
 Ser His Arg Val Thr His Cys Pro Tyr Ala Val Ala Leu Pro Glu Val  
 1 5 10 15

Ala Pro Ala Gln Pro Leu Thr Glu Ala Leu Arg Ala Leu Cys His Val  
 20 25 30

Gly Leu Phe Xaa Phe Ala Phe Cys Ala Leu Phe Asp Cys Xaa Arg Pro  
 35 40 45

Val Xaa Gln Lys Ser Cys Asp Leu Leu Leu Phe Leu Arg Asp Lys Ile  
 50 55 60

Ala Ser Tyr Ser Ser Leu Arg Glu Ala Arg Gly Ser Pro Asn Thr Ala  
 65 70 75 80

Ser Ala Glu Ala Xaa Leu Pro Arg Trp Arg Ala Gly Glu Gln Ala Gln  
 85 90 95



665

Pro Pro Gly Asp Gln Glu Pro Glu Ala Val Leu Ala Met Leu Arg Ser  
                   100                  105                  110

Leu Asp Leu Glu Gly Leu Arg Ser Thr Leu Ala Glu Ser Ser Asp His  
           115                  120                  125

Val Glu Lys Ser Pro Gln Ser Leu Leu Gln Asp Met Leu Ala Thr Gly  
       130                  135                  140

Gly Phe Leu Gln Gly Asp Glu Ala Asp Cys Tyr  
 145                  150                  155

&lt;210&gt; 691

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 691

Met Cys Leu Glu Arg Pro Leu Arg Glu Gly Pro Arg Val Met Glu Lys  
   1                  5                  10                  15

Glu Ala Trp Pro Gly Ser Leu Glu Gly Arg Gly Gly Gly Trp Arg His  
           20                  25                  30

Leu Asp Cys Pro Leu Leu Ser His Thr Trp Gly Val Val Thr Pro Phe  
       35                  40                  45

Thr Pro Ala Arg Leu Pro Ser Ala Phe His Glu Leu His Leu Leu Pro  
       50                  55                  60

Thr Ser Leu Trp Arg Gly Trp Gly Pro Leu Ala Ser Thr Arg Gly Pro  
       65                  70                  75                  80

Ser Ala Ser Pro Lys Pro Glu Pro Ser Ala Pro Gly Glu Asn Lys Trp  
           85                  90                  95

Leu Ser Phe Asp Thr Trp Gly Arg Arg Glu Ala Ala Gly Trp Arg Gln  
           100                  105                  110

Ser Gln Gly Arg Asp Thr Thr Glu Gly Asp Pro Asp Ile Pro Arg Lys  
       115                  120                  125

Phe Pro Ala Glu Gln Thr Ala Phe Gln Pro Glu Ala Cys Leu Asn Cys  
       130                  135                  140

Val Met Cys Asn Asn  
 145

666

&lt;210&gt; 692

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (160)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 692

Pro	Gly	Val	Lys	Leu	Trp	Asp	Val	Pro	Val	Met	Leu	Asp	His	Lys	Asp	1	5	10	15
Leu	Glu	Ala	Glu	Ile	His	Pro	Leu	Lys	Asn	Glu	Glu	Arg	Lys	Ser	Gln	20	25	30	
Glu	Asn	Leu	Gly	Asn	Pro	Ser	Lys	Asn	Glu	Asp	Asn	Val	Lys	Ser	Ala	35	40	45	
Pro	Pro	Gln	Ser	Arg	Leu	Ser	Arg	Cys	Arg	Ala	Ala	Ala	Phe	Phe	Leu	50	55	60	
Ser	Leu	Phe	Leu	Cys	Leu	Phe	Val	Val	Phe	Val	Val	Ser	Phe	Val	Ile	65	70	75	80
Pro	Cys	Pro	Asp	Arg	Pro	Ala	Ser	Gln	Arg	Met	Trp	Arg	Ile	Asp	Tyr	85	90	95	
Ser	Ala	Ala	Val	Ile	Tyr	Asp	Phe	Leu	Ala	Val	Asp	Asp	Ile	Asn	Gly	100	105	110	
Asp	Arg	Ile	Gln	Asp	Val	Leu	Phe	Leu	Tyr	Lys	Asn	Thr	Asn	Ser	Ser	115	120	125	
Asn	Asn	Phe	Ser	Arg	Ser	Cys	Val	Asp	Glu	Gly	Phe	Ser	Ser	Pro	Cys	130	135	140	
Thr	Phe	Ala	Ala	Ala	Val	Ser	Gly	Ala	Asn	Ala	Ala	Arg	Ser	Gly	Xaa	145	150	155	160
Asp	Leu	Trp	Pro	Lys	Thr	Trp	Pro	Ser	Trp	Ser	Val	Leu	Cys	Pro	Ser	165	170	175	
Gln	Glu	Ala	Val	Arg	His	Leu	Leu	Pro	Ala	Ser	Trp	Trp	Ala	Asp	Pro	180	185	190	
Val	Leu	Ser	Leu	Gln	Ser	Thr	Cys	Ser	Gln	Gly	Lys	Pro	Trp	Lys	Pro	195	200	205	

667

Gln Pro Ala Val Gln Gly Glu Trp Ser Ile  
210 215

<210> 693  
<211> 68  
<212> PRT  
<213> Homo sapiens

<400> 693  
Ser Cys Asn Ser Ser Asn Asn Ile Leu Gln Leu Pro Tyr Arg Asn Arg  
1 5 10 15  
Ser Gly Arg Ala Lys Ser Asp Leu Gly Lys Val Ile Arg Tyr Arg Leu  
20 25 30  
Ser Ile Pro Phe Pro Lys Met Leu Gly Thr Arg Ser Ile Ser Asp Phe  
35 40 45  
Ile Ile Phe Phe Lys Val Trp Asn Ile Cys Ile Ile Leu Thr Ser Trp  
50 55 60  
Ala Ser Gln Ile  
65

<210> 694  
<211> 234  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (3)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (219)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 694  
Cys Ala Xaa Xaa Leu Arg Gly Phe Asp Gln Gln Met Ser Ser Met Val

668

1	5	10	15
Ile Glu His Met Ala Ser His Gly Thr Arg Phe Leu Arg Gly Cys Ala	20	25	30
Pro Ser Arg Val Arg Arg Leu Pro Asp Gly Gln Leu Gln Val Thr Trp	35	40	45
Glu Asp Ser Thr Thr Gly Lys Glu Asp Thr Gly Thr Phe Asp Thr Val	50	55	60
Leu Trp Ala Ile Gly Arg Val Pro Asp Thr Arg Ser Leu Asn Leu Glu	65	70	75
Lys Ala Gly Val Asp Thr Ser Pro Asp Thr Gln Lys Ile Leu Val Asp	85	90	95
Ser Arg Glu Ala Thr Ser Val Pro His Ile Tyr Ala Ile Gly Asp Val	100	105	110
Val Glu Gly Arg Pro Glu Leu Thr Pro Thr Ala Ile Met Ala Gly Arg	115	120	125
Leu Leu Val Gln Arg Leu Phe Gly Gly Ser Ser Asp Leu Met Asp Tyr	130	135	140
Asp Asn Val Pro Thr Thr Val Phe Thr Pro Leu Glu Tyr Gly Cys Val	145	150	155
Gly Leu Ser Glu Glu Glu Ala Val Ala Arg His Gly Gln Glu His Val	165	170	175
Glu Val Tyr His Ala His Tyr Lys Pro Leu Glu Phe Thr Val Ala Gly	180	185	190
Arg Asp Ala Ser Gln Cys Tyr Val Lys Met Val Cys Leu Arg Glu Pro	195	200	205
Pro Gln Leu Val Leu Gly Leu His Phe Leu Xaa Pro Thr Gln Ala Asn	210	215	220
Tyr Ser Arg Ile Cys Ser Gly Asp Lys Cys	225	230	

&lt;210&gt; 695

&lt;211&gt; 460

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

669

&lt;400&gt; 695

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Pro Cys Pro Pro Arg Pro Gln Glu Leu Pro Gly Arg Ser Pro Ser Ser
 1           5           10           15

Trp Ser Ala Leu Gly Trp Pro Ala Ala Leu Gly Gly Gly Val Val Ala
      20           25           30

Val Ala Val Cys Glu Pro Val Ala Arg Leu Leu Trp Ala Gly Thr Leu
      35           40           45

Lys Ile Ala Ala Met Ala Glu Asn Gly Asp Asn Glu Lys Met Ala Ala
      50           55           60

Leu Glu Ala Lys Ile Cys His Gln Ile Glu Tyr Tyr Phe Gly Asp Phe
      65           70           75           80

Asn Leu Pro Arg Asp Lys Phe Leu Lys Glu Gln Ile Lys Leu Asp Glu
      85           90           95

Gly Trp Val Pro Leu Glu Ile Met Ile Lys Phe Asn Arg Leu Asn Arg
      100           105           110

Leu Thr Thr Asp Phe Asn Val Ile Val Glu Ala Leu Ser Lys Ser Lys
      115           120           125

Ala Glu Leu Met Glu Ile Ser Glu Asp Lys Thr Lys Ile Arg Arg Ser
      130           135           140

Pro Ser Lys Pro Leu Pro Glu Val Thr Asp Glu Tyr Lys Asn Asp Val
      145           150           155           160

Lys Asn Arg Ser Val Tyr Ile Lys Gly Phe Pro Thr Asp Ala Thr Leu
      165           170           175

Asp Asp Ile Lys Glu Trp Leu Glu Asp Lys Gly Gln Val Leu Asn Ile
      180           185           190

Gln Met Arg Arg Thr Leu His Lys Ala Phe Lys Gly Ser Ile Phe Val
      195           200           205

Val Phe Asp Ser Ile Glu Ser Ala Lys Lys Phe Val Glu Thr Pro Gly
      210           215           220

Gln Lys Tyr Lys Glu Thr Asp Leu Leu Ile Leu Phe Lys Asp Asp Tyr
      225           230           235           240

Phe Ala Lys Lys Asn Glu Glu Arg Lys Gln Asn Lys Val Glu Ala Lys
      245           250           255

Leu Arg Ala Lys Gln Glu Gln Glu Ala Lys Gln Lys Leu Glu Glu Asp
      260           265           270

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670

Ala Glu Met Lys Ser Leu Glu Glu Lys Ile Gly Cys Leu Leu Lys Phe  
 275 280 285

Ser Gly Asp Leu Asp Asp Gln Thr Cys Arg Glu Asp Leu His Ile Leu  
 290 295 300

Phe Ser Asn His Gly Glu Ile Lys Trp Ile Asp Phe Val Arg Gly Ala  
 305 310 315 320

Lys Glu Gly Ile Ile Leu Phe Lys Glu Lys Ala Lys Glu Ala Leu Gly  
 325 330 335

Lys Ala Lys Asp Ala Asn Asn Gly Asn Leu Gln Leu Arg Asn Lys Glu  
 340 345 350

Val Thr Trp Glu Val Leu Glu Gly Glu Val Glu Lys Glu Ala Leu Lys  
 355 360 365

Lys Ile Ile Glu Asp Gln Gln Glu Ser Leu Asn Lys Trp Lys Ser Lys  
 370 375 380

Gly Arg Arg Phe Lys Gly Lys Gly Lys Gly Asn Lys Ala Ala Gln Pro  
 385 390 395 400

Gly Ser Gly Lys Gly Lys Val Gln Phe Gln Gly Lys Lys Thr Lys Phe  
 405 410 415

Ala Ser Asp Asp Glu His Asp Glu His Asp Glu Asn Gly Ala Thr Gly  
 420 425 430

Pro Val Lys Arg Ala Arg Glu Glu Thr Asp Lys Glu Glu Pro Ala Ser  
 435 440 445

Lys Gln Gln Lys Thr Glu Asn Gly Ala Gly Asp Gln  
 450 455 460

&lt;210&gt; 696

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 696

Gly Glu Glu Gly Val Gly Ser Pro Ser Gly Ile Leu Ala Thr Pro Leu  
 1 5 10 15

Arg Ser Ala Arg Gly Thr Thr His Thr His Thr His Thr His  
 20 25 30

671

Thr His Ser His Thr His Ala His Phe Pro Ser Phe Pro Asp Pro Leu  
                   35                                  40                                  45

Phe Gln Ser Ser Pro Phe Ser Ser Gly Phe Ile Asp Glu Tyr Lys Tyr  
                   50                                  55                                  60

Pro His Leu Trp Pro Val Met Ser Val Thr Cys Cys Arg Phe Cys Val  
                   65                                  70                                  75                                  80

&lt;210&gt; 697

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 697

Trp Pro Arg Arg Pro Gly Pro His Leu Gly Val Leu Glu Phe Pro Gly  
           1                                  5                                  10                                  15

Ala Gly Cys Gly Ala Ser Ala Ala Gly Trp Pro Ser Ala Xaa Met Leu  
                                   20                                  25                                  30

Pro Gly Arg Gly Pro Arg Pro Phe Arg Ala Arg Leu Val Gly Arg Glu  
                   35                                  40                                  45

Leu Val Ser Met Leu Ala Arg Glu Leu Pro Ala Ala Val Ala Pro Ala  
           50                                  55                                  60

Gly Pro Ala Ser Leu Ala Arg Trp Thr Leu Gly Phe Cys Asp Glu Arg  
           65                                  70                                  75                                  80

Leu Val Pro Phe Asp His Ala Glu Ser Thr Tyr Gly Leu Tyr Arg Thr  
                                   85                                  90                                  95

His Leu Leu Ser Arg Leu Pro Ile Pro Glu Ser Gln Val Ile Thr Ile  
                   100                                  105                                  110

Asn Pro Glu Leu Pro Val Glu Glu Ala Ala Glu Asp Tyr Ala Lys Lys  
           115                                  120                                  125

Leu Arg Gln Ala Phe Gln Gly Asp Ser Ile Pro Val Phe Asp Leu Leu  
           130                                  135                                  140

672

Ile Leu Gly Val Gly Pro Asp Gly His Thr Cys Ser Leu Phe Pro Asp  
 145 150 155 160

His Pro Leu Leu Gln Glu Arg Glu Lys Ile Val Ala Pro Ile Ser Asp  
 165 170 175

Ser Pro Lys Pro Pro Pro Gln Arg Val Thr Leu Thr Leu Pro Val Leu  
 180 185 190

Asn Ala Ala Arg Thr Val Ile Phe Val Ala Thr Gly Glu Gly Lys Ala  
 195 200 205

Ala Val Leu Lys Arg Ile Leu Glu Asp Gln Glu Glu Asn Pro Leu Pro  
 210 215 220

Ala Ala Leu Val Gln Pro His Thr Gly Lys Leu Cys Trp Phe Leu Asp  
 225 230 235 240

Glu Ala Ala Ala Arg Leu Leu Thr Val Pro Phe Glu Lys His Ser Thr  
 245 250 255

Leu

<210> 698

<211> 68

<212> PRT

<213> Homo sapiens

<400> 698

Gln Tyr Lys Thr Pro Ala Val Asp Thr Thr Met Met Thr Phe His Glu  
 1 5 10 15

Leu Val Phe Leu Val Leu Thr Ala Lys Phe Val Leu Phe Thr Gly Gln  
 20 25 30

Ile Ser Asn Lys Val Leu Gly Leu Lys Ile His Gly Trp Thr Glu Val  
 35 40 45

Pro Tyr Pro Leu Thr Met Glu Ala Gly Ala Thr Phe Trp Gly Tyr Leu  
 50 55 60

Phe Leu Asn Phe  
 65

<210> 699



673

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 699

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Pro Cys Ser Ala Thr Thr Ala Trp Val Lys Ser Ser Ile Lys Thr His
  1              5              10              15

Leu Cys Ala Ser Leu Arg His Ile Arg Phe Leu Leu Ser Val Cys Leu
      20              25              30

Leu Cys Leu Val Ala Gly Thr Ala Val Ala Val Lys Met Ala Ser Thr
      35              40              45

Ser Arg Leu Asp Ala Leu Pro Arg Val Thr Cys Pro Asn His Pro Asp
      50              55              60

Ala Ile Leu Val Glu Asp Tyr Arg Ala Gly Asp Met Ile Cys Pro Glu
      65              70              75              80

Cys Gly Leu Val Val Gly Asp Arg Val Ile Asp Val Gly Ser Glu Trp
      85              90              95

Arg Thr Phe Ser Asn Asp Lys Ala Thr Lys Asp Pro Ser Arg Val Gly
      100             105             110

Asp Ser Gln Asn Pro Leu Leu Ser Asp Gly Asp Leu Ser Thr Met Ile
      115             120             125

Gly Lys Gly Thr Gly Ala Ala Ser Phe Asp Glu Phe Gly Asn Ser Lys
      130             135             140

Tyr Gln Asn Arg Arg Thr Met Ser Ser Ser Asp Arg Ala Met Met Asn
      145             150             155             160

Ala Phe Lys Glu Ile Thr Thr Met Ala Asp Arg Ile Asn Leu Pro Arg
      165             170             175

Asn Ile Val Asp Arg Thr Asn Asn Leu Phe Lys Gln Val Tyr Glu Gln
      180             185             190

Lys Ser Leu Lys Gly Arg Ala Asn Asp Ala Ile Ala Ser Ala Cys Leu
      195             200             205

Tyr Ile Ala Cys Arg Gln Glu Gly Val Pro Arg Thr Phe Lys Glu Ile
      210             215             220

Cys Ala Val Ser Arg Ile Ser Lys Lys Glu Ile Gly Arg Cys Phe Lys
      225             230             235             240

Leu Ile Leu Lys Ala Leu Glu Thr Ser Val Asp Leu Ile Thr Thr Gly

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674

	245		250		255
Asp Phe Met Ser Arg Phe Cys Ser Asn Leu Cys Leu Pro Lys Gln Val					
	260		265		270
Gln Met Ala Ala Thr His Ile Ala Arg Lys Ala Val Glu Leu Asp Leu					
	275		280		285
Val Pro Gly Arg Ser Pro Ile Ser Val Ala Ala Ala Ala Ile Tyr Met					
	290		295		300
Ala Ser Gln Ala Ser Ala Glu Lys Arg Thr Gln Lys Glu Ile Gly Asp					
305		310		315	320
Ile Ala Gly Val Ala Asp Val Thr Ile Arg Gln Ser Tyr Arg Leu Ile					
	325		330		335
Tyr Pro Arg Ala Pro Asp Leu Phe Pro Thr Asp Phe Lys Phe Asp Thr					
	340		345		350
Pro Val Asp Lys Leu Pro Gln Leu					
	355		360		

&lt;210&gt; 700

&lt;211&gt; 364

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (353)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (360)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 700

675

Pro Ser Trp Leu Arg Ala Arg Ser Ser Arg Ser Trp Xaa Ala Ser Pro  
 1 5 10 15  
 Arg Gly Pro Gln Pro Pro Arg Ile Arg Ala Arg Ser Ala Xaa Pro Met  
 20 25 30  
 Glu Gly Ala Arg Val Phe Gly Ala Leu Gly Pro Ile Gly Pro Ser Ser  
 35 40 45  
 Pro Gly Leu Thr Leu Gly Gly Leu Ala Val Ser Glu His Arg Leu Ser  
 50 55 60  
 Asn Lys Leu Leu Ala Trp Ser Gly Val Leu Glu Trp Gln Glu Lys Arg  
 65 70 75 80  
 Arg Pro Tyr Ser Asp Ser Thr Ala Lys Leu Lys Arg Thr Leu Pro Cys  
 85 90 95  
 Gln Ala Tyr Val Asn Gln Gly Glu Asn Leu Glu Thr Asp Gln Trp Pro  
 100 105 110  
 Gln Lys Leu Ile Met Gln Leu Ile Pro Gln Gln Leu Leu Thr Thr Leu  
 115 120 125  
 Gly Pro Leu Phe Arg Asn Ser Gln Leu Ala Gln Phe His Phe Thr Asn  
 130 135 140  
 Arg Asp Cys Asp Ser Leu Lys Gly Leu Cys Arg Ile Met Gly Asn Gly  
 145 150 155 160  
 Phe Ala Gly Cys Met Leu Phe Pro His Ile Ser Pro Cys Glu Val Arg  
 165 170 175  
 Val Leu Met Leu Leu Tyr Ser Ser Lys Lys Lys Ile Phe Met Gly Leu  
 180 185 190  
 Ile Pro Tyr Asp Gln Ser Gly Phe Val Ser Ala Ile Arg Gln Val Ile  
 195 200 205  
 Thr Thr Arg Lys Gln Ala Val Gly Pro Gly Gly Val Asn Ser Gly Pro  
 210 215 220  
 Val Gln Ile Val Asn Asn Lys Phe Leu Ala Trp Ser Gly Val Met Glu  
 225 230 235 240  
 Trp Gln Glu Pro Arg Pro Glu Pro Asn Ser Arg Ser Lys Arg Trp Leu  
 245 250 255  
 Pro Ser His Val Tyr Val Asn Gln Gly Glu Ile Leu Arg Thr Glu Gln  
 260 265 270

676

Trp	Pro	Arg	Lys	Leu	Tyr	Met	Gln	Leu	Ile	Pro	Gln	Gln	Leu	Leu	Thr
		275					280					285			

Thr Leu Val Pro Leu Phe Arg Asn Ser Arg Leu Val Gln Phe His Phe  
290 295 300

Thr Lys Asp Leu Glu Thr Leu Lys Ser Leu Cys Arg Ile Met Asp Asn  
305 310 315 320

Gly Phe Ala Gly Cys Val His Phe Ser Tyr Lys Ala Ser Cys Glu Ile  
325 330 335

Arg Val Leu Met Leu Leu Tyr Ser Ser Glu Lys Lys Ile Phe Ile Gly  
340 345 350

Xaa Ile Pro His Asp Gln Gly Xaa Phe Val Gln Arg  
355 360

<210> 701

<211> 156

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

&lt;221&gt; SITE

<222> (33)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 701

Gly Thr Arg Gly Ile Leu His Val Ala Val Pro Ala Arg Gly Thr His  
1 5 10 15

Ala Gln Cys Cys Arg Asn Trp Thr Val Pro Asp Ser Gly Gln Gly Lys  
20 25 30

Xaa Val Met Leu Glu Gly Gln Gly Arg Leu Glu Arg Val His Ile Pro  
35 40 45

Leu Ser Ala Pro Ala Ser Ala Thr Val Gln Arg Pro Thr Gly Pro Gln  
50 55 60

Pro Val Ala Cys Pro His Cys Pro Val Pro Thr Ser Asn Ser Pro Gln  
65 70 75 80

Pro Leu Val Ala Ser Val Pro Cys Pro Leu Gly Phe Ser Ser Gln Pro  
85 90 95

Ser Gly Leu Gly Leu Cys Arg Lys Val Met Pro Thr Gly Thr Leu Leu  
100 105 110

677

Thr Pro Gly Ser Phe Met Asp Val Val Ser Glu Leu Arg Thr Arg Gly  
 115 120 125

Cys Gln Met Phe Leu Ala Pro His Val Ser Phe Arg Thr Glu Gln Lys  
 130 135 140

His Lys Asp Ser Ala Lys Ser Ser Leu Tyr Ser Leu  
 145 150 155

<210> 702  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 702  
 Ala Gly His Gly Leu Gly Val Arg Ala Gly Leu Lys Glu Phe Ala Thr  
 1 5 10 15

Asn Leu Thr Glu Ser Gly Val His Gly Ala Leu Leu Ala Leu Asp Glu  
 20 25 30

Thr Phe Asp Tyr Ser Asp Leu Ala Leu Leu Leu Gln Ile Pro Thr Gln  
 35 40 45

Asn Ala Gln Ala Arg Gln Leu Leu Glu Lys Glu Phe Ser Asn Leu Ile  
 50 55 60

Ser Leu Gly Thr Asp Arg Arg Leu Asp Glu Asp Ser Ala Lys Ser Phe  
 65 70 75 80

Ser Arg Ser Pro Ser Trp Arg Lys Met Phe Arg Glu Lys Asp Leu Arg  
 85 90 95

Gly Val Thr Pro Asp Ser Ala Glu Met Leu Pro Pro Asn Phe Arg Ser  
 100 105 110

Ala Ala Ala Gly Ala Leu Gly Ser Pro Gly Leu Pro Leu Arg Lys Leu  
 115 120 125

Gln Pro Glu Gly Gln Thr Ser Gly Ser Ser Arg Ala Asp Gly Val Ser  
 130 135 140

Val Arg Thr Tyr Ser Cys  
 145 150

<210> 703

678

<211> 527  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (243)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (257)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (259)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (471)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (477)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (480)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (484)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (511)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (519)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 703  
Cys Val Cys Val Glu Gly Val Glu Gly Pro Arg Cys Asp Lys Cys Thr

679

1	5	10	15
Arg Gly Tyr Ser Gly Val Phe Pro Asp Cys Thr Pro Cys His Gln Cys	20	25	30
Phe Ala Leu Trp Asp Val Ile Ile Ala Glu Leu Thr Asn Arg Thr His	35	40	45
Arg Phe Leu Glu Lys Ala Lys Ala Leu Lys Ile Ser Gly Val Ile Gly	50	55	60
Pro Tyr Arg Glu Thr Val Asp Ser Val Glu Arg Lys Val Ser Glu Ile	65	70	75
Lys Asp Ile Leu Ala Gln Ser Pro Ala Ala Glu Pro Leu Lys Asn Ile	85	90	95
Gly Asn Leu Phe Glu Glu Ala Glu Lys Leu Ile Lys Asp Val Thr Glu	100	105	110
Met Met Ala Gln Val Glu Val Lys Leu Ser Asp Thr Thr Ser Gln Ser	115	120	125
Asn Ser Thr Ala Lys Glu Leu Asp Ser Leu Gln Thr Glu Ala Glu Ser	130	135	140
Leu Asp Asn Thr Val Lys Glu Leu Ala Glu Gln Leu Glu Phe Ile Lys	145	150	155
Asn Ser Asp Ile Arg Gly Ala Leu Asp Ser Ile Thr Lys Tyr Phe Gln	165	170	175
Met Ser Leu Glu Ala Glu Glu Arg Val Asn Ala Ser Thr Thr Glu Pro	180	185	190
Asn Ser Thr Val Glu Gln Ser Ala Leu Met Arg Asp Arg Val Glu Asp	195	200	205
Val Met Met Glu Arg Glu Ser Gln Phe Lys Glu Lys Gln Glu Glu Gln	210	215	220
Ala Arg Leu Leu Asp Glu Leu Ala Gly Lys Leu Gln Ser Leu Asp Leu	225	230	235
Ser Ala Xaa Ala Glu Met Thr Cys Gly Thr Pro Pro Gly Ala Ser Cys	245	250	255
Xaa Glu Xaa Glu Cys Gly Gly Pro Asn Cys Arg Thr Asp Glu Gly Glu	260	265	270
Arg Lys Cys Gly Gly Pro Gly Cys Gly Gly Leu Val Thr Val Ala His			

680

275	280	285
Asn Ala Trp Gln Lys Ala Met Asp Leu Asp Gln Asp Val Leu Ser Ala 290 295 300		
Leu Ala Glu Val Glu Gln Leu Ser Lys Met Val Ser Glu Ala Lys Leu 305 310 315 320		
Arg Ala Asp Glu Ala Lys Gln Ser Ala Glu Asp Ile Leu Leu Lys Thr 325 330 335		
Asn Ala Thr Lys Glu Lys Met Asp Lys Ser Asn Glu Glu Leu Arg Asn 340 345 350		
Leu Ile Lys Gln Ile Arg Asn Phe Leu Thr Gln Asp Ser Ala Asp Leu 355 360 365		
Asp Ser Ile Glu Ala Val Ala Asn Glu Val Leu Lys Met Glu Met Pro 370 375 380		
Ser Thr Pro Gln Gln Leu Gln Asn Leu Thr Glu Asp Ile Arg Glu Arg 385 390 395 400		
Val Glu Ser Leu Ser Gln Val Glu Val Ile Leu Gln His Ser Ala Ala 405 410 415		
Asp Ile Ala Arg Ala Glu Met Leu Leu Glu Glu Ala Lys Arg Ala Ser 420 425 430		
Lys Ser Ala Thr Asp Val Lys Val Thr Ala Asp Met Val Lys Glu Ala 435 440 445		
Leu Glu Glu Ala Glu Lys Ala Gln Val Ala Ala Glu Lys Ala Ile Lys 450 455 460		
Gln Ala Asp Glu Asp Ile Xaa Arg Asn Pro Glu Pro Xaa Asn Phe Xaa 465 470 475 480		
Leu Glu Phe Xaa Lys Gln Gln Leu Ser Gly Gly Asn Leu Val Gln Arg 485 490 495		
Val Pro Arg Ala Ser Ser Glu Phe Arg Glu Asp Val Gly Arg Xaa Leu 500 505 510		
Ser Gly Lys Leu Ala Gln Xaa Pro Gly Gly Gly Arg Ile Phe Trp 515 520 525		

&lt;210&gt; 704

&lt;211&gt; 62



681

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 704

Val Tyr Gln Arg Lys Ser Thr Val Val Leu Gly Gly Phe Leu Leu Trp  
 1 5 10 15

Asp Ile Asp Phe Leu Phe Phe Phe Arg Asn Ile Val Cys Cys Asn Leu  
 20 25 30

Asn Lys Asn Tyr Asp Ile Leu Arg Tyr Phe Ile Asp Lys Pro Asn Lys  
 35 40 45

Asn Ile Cys Phe Tyr Phe Lys Val Asn Val Phe Leu Phe Ser  
 50 55 60

&lt;210&gt; 705

&lt;211&gt; 44

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 705

Thr Glu Asp Leu Phe Gly Phe Lys His Leu Leu Arg Gln Tyr Leu Leu  
 1 5 10 15

Gly Lys Pro Asn Ile Ala Asn Gly Gln Phe Asp Phe Asn Phe Ser Lys  
 20 25 30

Asp Thr Leu Leu Ser Arg Arg Leu Lys Cys Leu His  
 35 40

&lt;210&gt; 706

&lt;211&gt; 193

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 706

Xaa Gly Arg Ala Trp Val Met Ala Ala Pro Gly Ala Leu Leu Val Met  
 1 5 10 15

Gly Val Ser Gly Ser Gly Lys Ser Thr Val Gly Ala Leu Leu Ala Ser  
 20 25 30

682

Glu Leu Gly Trp Lys Phe Tyr Asp Ala Asp Asp Tyr His Pro Glu Glu  
           35                          40                          45  
 Asn Arg Arg Lys Met Gly Lys Gly Ile Pro Leu Asn Asp Gln Asp Arg  
           50                          55                          60  
 Ile Pro Trp Leu Cys Asn Leu His Asp Ile Leu Leu Arg Asp Val Ala  
           65                          70                          75                          80  
 Ser Gly Gln Arg Val Val Leu Ala Cys Ser Ala Leu Lys Lys Thr Tyr  
                           85                          90                          95  
 Arg Asp Ile Leu Thr Gln Gly Lys Asp Gly Val Ala Leu Lys Cys Glu  
                           100                          105                          110  
 Glu Ser Gly Lys Glu Ala Lys Gln Ala Glu Met Gln Leu Leu Val Val  
           115                          120                          125  
 His Leu Ser Gly Ser Phe Glu Val Ile Ser Gly Arg Leu Leu Lys Arg  
           130                          135                          140  
 Glu Gly His Phe Met Pro Pro Glu Leu Leu Gln Ser Gln Phe Glu Thr  
           145                          150                          155                          160  
 Leu Glu Pro Pro Ala Ala Pro Glu Asn Phe Ile Gln Ile Ser Val Asp  
                           165                          170                          175  
 Lys Asn Val Ser Glu Ile Ile Ala Thr Ile Met Glu Thr Leu Lys Met  
           180                          185                          190  
 Lys

&lt;210&gt; 707

&lt;211&gt; 121

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (102)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

683

&lt;400&gt; 707

Gly Ile Arg Gly Gln Thr Leu Trp Leu Gly Pro Leu Gly Ala Thr Leu  
 1 5 10 15  
 Trp Pro Leu Gly Ala Leu Glu Thr Ser His Val Leu Trp Ala Leu Trp  
 20 25 30  
 Arg Ala Leu Ala Leu His Gly Gly Ala Gly Arg His Cys Leu Pro Cys  
 35 40 45  
 Pro Leu Pro Ala Ala Pro Ala Leu Val Cys Arg Leu Gly Pro Gly Cys  
 50 55 60  
 Leu Leu Leu Gly Val Trp Pro Arg Ala Pro Val Lys Pro Trp Arg His  
 65 70 75 80  
 Cys Val Cys Val Met Gly Ser Glu Gly Leu Val Gly Ala Val His Trp  
 85 90 95  
 Ser Ser Ser Leu Pro Xaa Xaa Ala Ile Ser Met Ala Pro Phe Ala Ala  
 100 105 110  
 Glu Asp Thr His Cys Gly Ser Val Gly  
 115 120

&lt;210&gt; 708

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 708

Asn Ser Phe Cys Tyr Phe His Ile Arg Val Gln Thr Tyr Lys Gly Ala  
 1 5 10 15  
 Cys Ser Leu Lys Val His Asn Tyr Ser Tyr Ser Val Cys Leu Tyr Cys  
 20 25 30  
 Tyr Arg Met Leu Cys Phe Gly Ala Leu Ser Ser Ala Asp Pro Arg Ser  
 35 40 45  
 Ser Val Glu Ile His Cys Leu Gly His Ser Leu Ile Arg Met Leu Ala  
 50 55 60  
 Gly Asp Phe Val Ser Asp Val Ala Ser Leu Phe Ser Val His Arg Leu  
 65 70 75 80  
 Arg Val Thr Thr Val Ala Cys Arg Val His Pro Val Gly Ala Ala Gln  
 85 90 95

684

Leu Ser Glu Ser Lys Asn Leu Pro Thr Tyr Ser Asn Val Phe Ala Leu  
 100 105 110

&lt;210&gt; 709

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 709

Arg Arg Val Trp Val Leu Phe Pro Pro Gln Arg Pro Glu Ser Gly Trp  
 1 5 10 15

Gly Val Ser Pro Val Glu Gly Glu Thr Val Pro Ala Leu Arg Gly Met  
 20 25 30

Lys Lys Ser Val Gly Leu Pro Val Ala Val Gln Cys Val Ala Leu Pro  
 35 40 45

Trp Gln Glu Glu Leu Cys Leu Arg Phe Met Arg Glu Val Glu Arg Leu  
 50 55 60

Met Thr Pro Glu Lys Gln Ser Ser  
 65 70

&lt;210&gt; 710

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 710

Arg Leu His Arg Tyr Pro Glu Ala Met Ala Ser Lys Gly Leu Gln Asp  
 1 5 10 15

Leu Lys Gln Gln Val Glu Gly Thr Ala Gln Glu Ala Val Ser Ala Ala  
 20 25 30

Gly Ala Ala Ala Gln Gln Val Val Asp Gln Ala Thr Glu Ala Gly Gln  
 35 40 45

Lys Ala Met Asp Gln Leu Ala Lys Thr Thr Gln Glu Thr Ile Asp Lys  
 50 55 60

Thr Ala Asn Gln Ala Ser Asp Thr Phe Ser Gly Ile Gly Lys Lys Phe  
 65 70 75 80

685

Gly Leu Leu Lys

&lt;210&gt; 711

&lt;211&gt; 63

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 711

Arg	Leu	His	Arg	Tyr	Pro	Glu	Ala	Met	Ala	Ser	Lys	Gly	Leu	Gln	Asp
1				5					10					15	

Leu	Lys	Gln	Gln	Val	Glu	Gly	Thr	Ala	Gln	Glu	Ala	Ala	Met	Asp	Gln
			20					25					30		

Leu	Ala	Lys	Thr	Thr	Gln	Glu	Thr	Ile	Asp	Lys	Thr	Ala	Asn	Gln	Ala
		35					40					45			

Ser	Asp	Thr	Phe	Ser	Gly	Ile	Gly	Lys	Lys	Phe	Gly	Leu	Leu	Lys
	50					55					60			

&lt;210&gt; 712

&lt;211&gt; 86

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 712

Arg	Leu	Ala	Asn	Arg	Ala	Ile	Met	Ser	His	Lys	Gln	Ile	Tyr	Tyr	Ser
1				5					10					15	

Asp	Lys	Tyr	Asp	Asp	Glu	Glu	Phe	Glu	Tyr	Arg	His	Val	Met	Leu	Pro
			20					25					30		

Lys	Asp	Ile	Ala	Lys	Leu	Val	Pro	Lys	Thr	His	Leu	Met	Ser	Glu	Ser
		35					40					45			

Glu	Trp	Arg	Asn	Leu	Gly	Val	Gln	Gln	Ser	Gln	Gly	Trp	Val	His	Tyr
	50					55					60				

Met	Ile	His	Glu	Pro	Glu	Pro	His	Ile	Leu	Leu	Phe	Arg	Arg	Pro	Leu
	65					70				75					80

Pro	Lys	Lys	Pro	Lys	Lys
				85	

686

<210> 713  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (129)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 713  
 Val Gln Lys Ala Gly Ala Arg Ala Leu Ala Val Ala Gly Ala Ala Arg  
     1                    5                    10                    15  
 Thr Pro Arg Ser Leu Pro Gly Arg Pro Ala Val Cys Asn Met Thr Leu  
             20                    25                    30  
 Glu Glu Phe Ser Ala Gly Glu Gln Lys Thr Glu Arg Met Asp Lys Val  
             35                    40                    45  
 Gly Asp Ala Leu Glu Glu Val Leu Ser Lys Ala Leu Ser Gln Arg Thr  
     50                    55                    60  
 Ile Thr Val Gly Val Tyr Glu Ala Ala Lys Leu Leu Asn Val Asp Pro  
     65                    70                    75                    80  
 Asp Asn Val Val Leu Cys Leu Leu Ala Ala Asp Glu Asp Asp Asp Arg  
             85                    90                    95  
 Asp Val Ala Leu Gln Ile His Phe Thr Leu Ile Gln Ala Phe Cys Cys  
             100                    105                    110  
 Glu Asn Asp Ile Asn Ile Leu Arg Val Thr Thr Arg Ala Gly Trp Arg  
     115                    120                    125  
 Xaa Pro Ala Leu Gly Asp Arg Arg Trp Pro Arg Gly Glu Arg Gly Arg  
     130                    135                    140  
 Arg Ala Ala Pro Gly Pro Ala Leu Arg Val Val Thr Asn Pro His Ser  
     145                    150                    155                    160  
 Ser Gln Trp Lys Asp Pro Ala Leu Ser Gln Leu Ile Cys Phe Cys Arg  
             165                    170                    175  
 Glu Ser Arg Tyr Met Asp Gln Trp Val Pro Val Ile Asn Leu Pro Glu  
     180                    185                    190

Arg

687

<210> 714  
 <211> 200  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (90)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (93)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (190)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 714  
 Gly Pro Gly Ala Cys Ser Gly Pro Ala Pro Ser Pro Arg Arg Pro Gln  
           1                  5                  10                  15  
 Ser Val Lys Cys Glu Pro Arg Arg Arg Gly Arg Ile Trp Pro Gly Ala  
                   20                  25                  30  
 Gly Gly Gly Val Gly Ala Ala Arg His Val His His His Gln Gly Ala  
           35                  40                  45  
 Gln Gln Ala Gly Arg Ala Ala Pro His Arg Ser His Ala Ala Ala Gly  
           50                  55                  60  
 Gly Gly Pro Ala Arg Arg Ala Pro Glu Met Pro Ala Ala Arg Ala Ala  
           65                  70                  75                  80  
 Asp Leu Ala Ala Pro Ala Gly Ala Ala Xaa Cys Ala Xaa Pro Gly Pro  
                   85                  90                  95  
 Trp Pro Leu Ser Ser Pro Gly Pro Arg Leu Val Phe Asn Arg Val Asn  
           100                  105                  110  
 Gly Arg Arg Ala Pro Ser Thr Ser Pro Ser Phe Glu Gly Thr Gln Glu  
           115                  120                  125  
 Thr Tyr Thr Val Ala His Glu Glu Asn Val Arg Phe Val Ser Glu Ala  
           130                  135                  140  
 Trp Gln Gln Val Gln Gln Gln Leu Asp Gly Gly Pro Ala Gly Glu Gly

688

145                      150                      155                      160  
 Gly Pro Arg Pro Val Gln Tyr Val Glu Arg Thr Pro Asn Pro Arg Leu  
                                  165                      170                      175  
 Gln Asn Phe Val Pro Ile Asp Leu Asp Glu Trp Trp Ala Xaa Gln Phe  
                                  180                      185                      190  
 Leu Ala Arg Ile Thr Ser Cys Ser  
                                  195                      200

&lt;210&gt; 715

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 715

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Leu Val Pro Xaa Leu  
 1                      5                      10                      15

Trp Ser Arg Glu Glu Ala Met Ala Thr Met Glu Asn Lys Val Ile Cys  
                                  20                      25                      30

Ala Leu Val Leu Val Ser Met Leu Ala Leu Gly Thr Leu Ala Glu Ala  
                                  35                      40                      45

Gln Thr Glu Thr Cys Thr Val Ala Pro Arg Glu Arg Gln Asn Cys Gly  
                                  50                      55                      60

Phe Pro Gly Val Thr Pro Ser Gln Cys Ala Asn Lys Gly Cys Cys Phe  
 65                      70                      75                      80

Asp Asp Thr Val Arg Gly Val Pro Trp Cys Phe Tyr Pro Asn Thr Ile  
                                  85                      90                      95

Asp Val Pro Pro Glu Glu Glu Cys Glu Phe  
                                  100                      105

&lt;210&gt; 716

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



689

&lt;400&gt; 716

Glu Gly Arg Glu Ala Gly Ser Gly Leu Ser Val Asp Ser Arg Asp Lys  
 1 5 10 15

Gly His Glu Gly Arg Gly Leu Gly Pro Phe Arg Ile Pro Gln Asp Ser  
 20 25 30

Gln Val Gln Leu Cys Gln Lys Gly Thr Phe His Val Met Gln Leu Arg  
 35 40 45

Gly Leu Ser Leu Asn Pro Arg Leu Leu Leu Thr Leu Gly Ser Phe Asn  
 50 55 60

Gln Val Gly Gln Pro Leu Leu Gln Arg Gly Val Gly Trp Leu Ser Ser  
 65 70 75 80

Leu Ser His Ala Ala Cys Glu Asp Arg Gly Gly Gly Val Gly Ser Gly  
 85 90 95

Lys Ser Pro Glu Asn Arg Arg Gly Ile  
 100 105

&lt;210&gt; 717

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 717

Arg Ala Ala Gly Ile Arg His Glu Arg Gly Gly Pro Thr Gly Ser Cys  
 1 5 10 15

Pro Gly Leu Pro Ser Pro Pro Met Val Leu Tyr Ile Lys Tyr Pro Gly  
 20 25 30

Trp Arg Ser His Met Leu Leu Thr Glu Gly Gly Asn Tyr His Ser Ser  
 35 40 45

Leu Gly Thr Arg Cys Glu Leu Ser Cys Asp Arg Gly Phe Arg Leu Ile  
 50 55 60

Gly Arg Arg Ser Val Gln Cys Leu Pro Ser Arg Arg Trp Ser Gly Thr  
 65 70 75 80

Ala Tyr Cys Arg Gln Met Arg Cys His Ala Leu Pro Phe Ile Thr Ser  
 85 90 95

Gly Thr Tyr Thr Cys Thr Asn Gly Val Leu Leu Asp Ser Arg Cys Asp  
 100 105 110

690

Tyr	Ser	Cys	Ser	Ser	Gly	Tyr	His	Leu	Glu	Gly	Asp	Arg	Ser	Arg	Ile	115	120	125	
Cys	Met	Glu	Asp	Gly	Arg	Trp	Ser	Gly	Gly	Glu	Pro	Val	Cys	Val	Asp	130	135	140	
Ile	Asp	Pro	Pro	Lys	Ile	Arg	Cys	Pro	His	Ser	Arg	Glu	Lys	Met	Ala	145	150	155	160
Glu	Pro	Glu	Lys	Leu	Thr	Ala	Arg	Val	Tyr	Trp	Asp	Pro	Pro	Leu	Val	165	170	175	
Lys	Asp	Ser	Ala	Asp	Gly	Thr	Ile	Thr	Arg	Val	Thr	Leu	Arg	Gly	Pro	180	185	190	
Glu	Pro	Gly	Ser	His	Phe	Pro	Glu	Gly	Glu	His	Val	Ile	Arg	Tyr	Thr	195	200	205	
Ala	Tyr	Asp	Arg	Ala	Tyr	Asn	Arg	Ala	Ser	Cys	Lys	Phe	Ile	Val	Lys	210	215	220	
Val	Gln	Val	Arg	Arg	Cys	Pro	Thr	Leu	Lys	Pro	Pro	Gln	His	Gly	Tyr	225	230	235	240
Leu	Thr	Cys	Thr	Ser	Ala	Gly	Asp	Asn	Tyr	Gly	Ala	Thr	Cys	Glu	Tyr	245	250	255	
His	Cys	Asp	Gly	Gly	Tyr	Asp	Arg	Gln	Gly	Thr	Pro	Ser	Arg	Val	Cys	260	265	270	
Gln	Ser	Ser	Arg	Gln	Trp	Ser	Gly	Ser	Pro	Pro	Ile	Cys	Ala	Pro	Met	275	280	285	
Lys	Ile	Asn	Val	Asn	Val	Asn	Ser	Ala	Ala	Gly	Leu	Leu	Asp	Gln	Phe	290	295	300	
Tyr	Glu	Lys	Gln	Arg	Leu	Leu	Ile	Ile	Ser	Ala	Pro	Asp	Pro	Ser	Asn	305	310	315	320
Arg	Tyr	Tyr	Lys	Met	Gln	Ile	Ser	Met	Leu	Gln	Gln	Ser	Thr	Cys	Gly	325	330	335	
Leu	Asp	Leu	Arg	His	Val	Thr	Ile	Ile	Glu	Leu	Val	Gly	Gln	Pro	Pro	340	345	350	
Gln	Glu	Val	Gly	Arg	Ile	Arg	Glu	Gln	Gln	Leu	Ser	Ala	Asn	Ile	Ile	355	360	365	
Glu	Glu	Leu	Arg	Gln	Phe	Gln	Arg	Leu	Thr	Arg	Ser	Tyr	Phe	Asn	Met	370	375	380	

691

Val Leu Ile Asp Lys Gln Gly Ile Asp Arg Asp Arg Tyr Met Glu Pro  
 385 390 395 400

Val Thr Pro Glu Glu Ile Phe Thr Phe Ile Asp Asp Tyr Leu Leu Ser  
 405 410 415

Asn Gln Glu Leu Thr Gln Arg Arg Glu Gln Arg Asp Ile Cys Glu  
 420 425 430

<210> 718

<211> 417

<212> PRT

<213> Homo sapiens

<400> 718

Gln Gly Leu Pro Asp Gly Val Trp Ala His Gly Thr Cys Pro Gly His  
 1 5 10 15

Arg Leu Val Ser Ser Gln Arg Arg Ile Ile Ala Ser Gly Ser Glu Asp  
 20 25 30

Cys Thr Val Met Val Trp Gln Ile Pro Glu Asn Gly Leu Thr Ser Pro  
 35 40 45

Leu Thr Glu Pro Val Val Val Leu Glu Gly His Thr Lys Arg Val Gly  
 50 55 60

Ile Ile Ala Trp His Pro Thr Ala Arg Asn Val Leu Leu Ser Ala Gly  
 65 70 75 80

Cys Asp Asn Val Val Leu Ile Trp Asn Val Gly Thr Ala Glu Glu Leu  
 85 90 95

Tyr Arg Leu Asp Ser Leu His Pro Asp Leu Ile Tyr Asn Val Ser Trp  
 100 105 110

Asn His Asn Gly Ser Leu Phe Cys Ser Ala Cys Lys Asp Lys Ser Val  
 115 120 125

Arg Ile Ile Asp Pro Arg Arg Gly Thr Leu Val Ala Glu Arg Glu Lys  
 130 135 140

Ala His Glu Gly Ala Arg Pro Met Arg Ala Ile Phe Leu Ala Asp Gly  
 145 150 155 160

Lys Val Phe Thr Thr Gly Phe Ser Arg Met Ser Glu Arg Gln Leu Ala  
 165 170 175

692

Leu Trp Asp Pro Glu Asn Leu Glu Glu Pro Met Ala Leu Gln Glu Leu  
 180 185 190  
 Asp Ser Ser Asn Gly Ala Leu Leu Pro Phe Tyr Asp Pro Asp Thr Ser  
 195 200 205  
 Val Val Tyr Val Cys Gly Lys Gly Asp Ser Ser Ile Arg Tyr Phe Glu  
 210 215 220  
 Ile Thr Glu Glu Pro Pro Tyr Ile His Phe Leu Asn Thr Phe Thr Ser  
 225 230 235 240  
 Lys Glu Pro Gln Arg Gly Met Gly Ser Met Pro Lys Arg Gly Leu Glu  
 245 250 255  
 Val Ser Lys Cys Glu Ile Ala Arg Phe Tyr Lys Leu His Glu Arg Lys  
 260 265 270  
 Cys Glu Pro Ile Val Met Thr Val Pro Arg Lys Ser Asp Leu Phe Gln  
 275 280 285  
 Asp Asp Leu Tyr Pro Asp Thr Ala Gly Pro Glu Ala Ala Leu Glu Ala  
 290 295 300  
 Glu Glu Trp Val Ser Gly Arg Asp Ala Asp Pro Ile Leu Ile Ser Leu  
 305 310 315 320  
 Arg Glu Ala Tyr Val Pro Ser Lys Gln Arg Asp Leu Lys Ile Ser Arg  
 325 330 335  
 Arg Asn Val Leu Ser Asp Ser Arg Pro Ala Met Ala Pro Gly Ser Ser  
 340 345 350  
 His Leu Gly Ala Pro Ala Ser Thr Thr Thr Ala Ala Asp Ala Thr Pro  
 355 360 365  
 Ser Gly Ser Leu Ala Arg Ala Gly Glu Ala Gly Lys Leu Glu Glu Val  
 370 375 380  
 Met Gln Glu Leu Arg Ala Leu Arg Ala Leu Val Lys Glu Gln Gly Asp  
 385 390 395 400  
 Arg Ile Cys Arg Leu Glu Glu Gln Leu Gly Arg Met Glu Asn Gly Asp  
 405 410 415  
 Ala

&lt;210&gt; 719

693

<211> 290  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (7)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (74)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (131)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 719

Glu Leu Ser Ala Ser Ala Xaa Asp Asp Gly Asn Phe Ser Leu Leu Ile  
 1 5 10 15

Arg Ala Val Glu Glu Thr Asp Ala Gly Leu Tyr Thr Cys Asn Leu His  
 20 25 30

His His Tyr Cys His Leu Tyr Glu Ser Leu Ala Val Arg Leu Glu Val  
 35 40 45

Thr Asp Gly Pro Pro Ala Pro Pro Pro Thr Gly Thr Ala Arg Arg Arg  
 50 55 60

Cys Trp Arg Trp Arg Ala Ala Pro Ala Xaa Leu Thr Cys Val Asn Arg  
 65 70 75 80

Gly His Val Trp Thr Asp Arg His Val Glu Glu Ala Gln Gln Val Val  
 85 90 95

His Trp Asp Arg Gln Pro Pro Gly Val Pro His Asp Arg Ala Asp Arg  
 100 105 110

Leu Leu Asp Leu Tyr Ala Ser Ala Ser Ala Ala Leu Arg Ala Pro Phe  
 115 120 125

Ser Ala Xaa Arg Val Ala Val Gly Ala Asp Ala Phe Lys Arg Gly Asp  
 130 135 140

Phe Ser Leu Arg Ile Glu Pro Leu Glu Val Ala Asp Glu Gly Thr Tyr  
 145 150 155 160

Ser Cys His Leu His His His Tyr Trp Arg Ala Ala Thr Thr Ser Ser

694

	165		170		175
Met Ser Ser Ser Pro Arg Ala Glu Pro Thr Ser Ser Ser Ser Trp Ala					
	180		185		190
Thr Cys Trp Pro Arg Cys Cys Ser Ser Ser Cys Tyr Trp Ser Leu Ser					
	195		200		205
Ser Trp Pro Pro Ala Gly Arg Gly Gly Tyr Glu Tyr Ser Asp Gln Lys					
	210		215		220
Ser Gly Lys Ser Lys Gly Lys Asp Val Asn Leu Ala Glu Phe Ala Val					
	225		230		235
Ala Ala Gly Asp Gln Met Leu Tyr Arg Ser Glu Asp Ile Gln Leu Asp					
	245		250		255
Tyr Lys Asn Asn Ile Leu Lys Glu Arg Ala Glu Leu Ala His Ser Pro					
	260		265		270
Leu Pro Ala Lys Tyr Ile Asp Leu Asp Lys Gly Phe Arg Lys Glu Asn					
	275		280		285
Cys Lys					
	290				

&lt;210&gt; 720

&lt;211&gt; 459

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 720

Asp Ala His Pro Lys Pro Cys Cys Glu Thr Ser Ala Ala Ala Cys Arg
1 5 10 15

Leu Val Glu Arg Ile Leu Thr Ser Trp Glu Glu Asn Asp Arg Val Gln
20 25 30

Cys Ala Gly Gly Pro Arg Lys Gly Tyr Met Gly His Leu Thr Arg Val
35 40 45

Ala Xaa Ala Leu Val Gln Asn Thr Glu Lys Gly Pro Asn Ala Glu Gln
50 55 60

695

Leu	Arg	Gln	Leu	Leu	Lys	Glu	Leu	Pro	Ser	Glu	Gln	Gln	Glu	Gln	Trp	65	70	75	80
Glu	Ala	Phe	Val	Ser	Gly	Pro	Leu	Ala	Glu	Thr	Asn	Lys	Lys	Asn	Met	85	90	95	
Val	Asp	Leu	Val	Asn	Thr	His	His	Leu	His	Ser	Ser	Ser	Asp	Asp	Glu	100	105	110	
Asp	Asp	Arg	Leu	Lys	Glu	Phe	Asn	Phe	Pro	Glu	Glu	Ala	Val	Leu	Gln	115	120	125	
Gln	Ala	Phe	Met	Asp	Phe	Gln	Met	Gln	Arg	Met	Thr	Ser	Ala	Phe	Ile	130	135	140	
Asp	His	Phe	Gly	Phe	Asn	Asp	Glu	Glu	Phe	Gly	Glu	Gln	Glu	Glu	Ser	145	150	155	160
Val	Asn	Ala	Pro	Phe	Asp	Lys	Thr	Ala	Asn	Ile	Thr	Phe	Ser	Leu	Asn	165	170		175
Ala	Asp	Asp	Glu	Asn	Pro	Asn	Ala	Asn	Leu	Leu	Glu	Ile	Cys	Tyr	Lys	180	185		190
Asp	Arg	Ile	Gln	Gln	Phe	Asp	Asp	Asp	Glu	Glu	Glu	Glu	Asp	Glu	Glu	195	200		205
Glu	Ala	Gln	Gly	Ser	Gly	Glu	Ser	Asp	Gly	Glu	Asp	Gly	Ala	Trp	Gln	210	215		220
Gly	Ser	Gln	Leu	Ala	Arg	Gly	Ala	Arg	Leu	Gly	Gln	Pro	Pro	Gly	Val	225	230	235	240
Arg	Ser	Gly	Gly	Ser	Thr	Asp	Ser	Glu	Asp	Glu	Glu	Glu	Glu	Asp	Glu	245	250		255
Glu	Glu	Glu	Glu	Asp	Glu	Glu	Gly	Ile	Gly	Cys	Ala	Ala	Arg	Gly	Gly	260	265		270
Ala	Thr	Pro	Leu	Ser	Tyr	Pro	Ser	Pro	Gly	Pro	Gln	Pro	Pro	Gly	Pro	275	280		285
Ser	Trp	Thr	Ala	Thr	Phe	Asp	Pro	Val	Pro	Thr	Asp	Ala	Pro	Thr	Ser	290	295	300	
Pro	Arg	Val	Ser	Gly	Glu	Glu	Glu	Leu	His	Thr	Gly	Pro	Pro	Ala	Pro	305	310	315	320
Gln	Gly	Pro	Leu	Ser	Val	Pro	Gln	Gly	Leu	Pro	Thr	Gln	Ser	Leu	Ala	325	330		335

696

Ser Pro Pro Ala Arg Asp Ala Leu Gln Leu Arg Ser Gln Asp Pro Thr  
340 345 350

Pro Pro Ser Ala Pro Gln Glu Ala Thr Glu Gly Ser Lys Val Thr Glu  
355 360 365

Pro Ser Ala Pro Cys Gln Ala Leu Val Ser Ile Gly Asp Leu Gln Ala  
370 375 380

Thr Phe His Gly Ile Arg Ser Ala Pro Ser Ser Ser Asp Ser Ala Thr  
385 390 395 400

Arg Asp Pro Ser Thr Ser Val Pro Ala Ser Gly Ala His Gln Pro Pro  
405 410 415

Gln Thr Thr Glu Gly Glu Lys Ser Pro Glu Pro Leu Gly Leu Pro Gln  
420 425 430

Ser Gln Ser Ala Gln Ala Leu Thr Pro Pro Pro Ile Pro Asn Gly Ser  
435 440 445

Ala Pro Glu Gly Pro Ala Ser Pro Gly Ser Gln  
450 455

<210> 721

<211> 523

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (115)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (327)

<223> Xaa equals any of the naturally occurring L-amino acids



697

&lt;400&gt; 721

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Leu Gln Arg Leu Lys Leu Ile Lys Pro Leu Leu Xaa Phe Glu Ser Leu
 1              5              10              15

Glu Glu Cys Tyr Met Ala Lys Ile Leu Val Ala Glu Gly Thr Arg Asp
      20              25              30

Val Pro Ile Gly Ala Ile Ile Cys Ile Thr Val Gly Lys Pro Glu Asp
      35              40              45

Ile Glu Ala Phe Lys Asn Tyr Thr Leu Asp Ser Ser Ala Ala Pro Thr
      50              55              60

Pro Gln Ala Ala Pro Ala Pro Thr Pro Ala Ala Thr Ala Ser Pro Pro
      65              70              75              80

Thr Pro Ser Ala Gln Ala Pro Gly Ser Ser Tyr Pro Pro His Met Gln
      85              90              95

Val Leu Leu Pro Ala Leu Ser Pro Thr Met Thr Met Gly Thr Val Gln
      100             105             110

Arg Trp Xaa Lys Lys Val Gly Glu Lys Leu Ser Glu Gly Asp Leu Leu
      115             120             125

Ala Glu Ile Glu Thr Asp Lys Ala Thr Ile Gly Phe Glu Val Gln Glu
      130             135             140

Glu Gly Tyr Leu Ala Lys Ile Leu Val Pro Glu Gly Thr Arg Asp Val
      145             150             155             160

Pro Leu Gly Thr Pro Leu Cys Ile Ile Val Glu Lys Glu Ala Asp Ile
      165             170             175

Ser Ala Phe Ala Asp Tyr Arg Pro Thr Glu Val Thr Asp Leu Lys Pro
      180             185             190

Gln Xaa Pro Pro Pro Thr Pro Pro Pro Val Ala Ala Val Pro Pro Thr
      195             200             205

Pro Gln Pro Leu Ala Pro Thr Pro Ser Ala Pro Cys Pro Ala Thr Pro
      210             215             220

Ala Gly Pro Lys Gly Arg Val Phe Val Ser Pro Leu Ala Lys Lys Leu
      225             230             235             240

Ala Val Glu Lys Gly Ile Asp Leu Thr Gln Val Lys Gly Thr Gly Pro
      245             250             255

Asp Gly Arg Ile Thr Lys Lys Asp Ile Asp Ser Phe Val Pro Ser Lys
      260             265             270

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698

Val	Ala	Pro	Ala	Pro	Ala	Ala	Val	Val	Pro	Pro	Thr	Gly	Pro	Gly	Met	275	280	285
Ala	Pro	Val	Pro	Thr	Gly	Val	Phe	Thr	Asp	Ile	Pro	Ile	Ser	Asn	Ile	290	295	300
Arg	Arg	Val	Ile	Ala	Gln	Arg	Leu	Met	Gln	Ser	Lys	Gln	Thr	Ile	Pro	305	310	315
His	Tyr	Tyr	Leu	Ser	Ile	Xaa	Val	Asn	Met	Gly	Glu	Val	Leu	Leu	Val	325	330	335
Arg	Lys	Glu	Leu	Asn	Lys	Ile	Leu	Glu	Gly	Arg	Ser	Lys	Ile	Ser	Val	340	345	350
Asn	Asp	Phe	Ile	Ile	Lys	Ala	Ser	Ala	Leu	Ala	Cys	Leu	Lys	Val	Pro	355	360	365
Glu	Ala	Asn	Ser	Ser	Trp	Met	Asp	Thr	Val	Ile	Arg	Gln	Asn	His	Val	370	375	380
Val	Asp	Val	Ser	Val	Ala	Val	Ser	Thr	Pro	Ala	Gly	Leu	Ile	Thr	Pro	385	390	395
Ile	Val	Phe	Asn	Ala	His	Ile	Lys	Gly	Val	Glu	Thr	Ile	Ala	Asn	Asp	405	410	415
Val	Val	Ser	Leu	Ala	Thr	Lys	Ala	Arg	Glu	Gly	Lys	Leu	Gln	Pro	His	420	425	430
Glu	Phe	Gln	Gly	Gly	Thr	Phe	Thr	Ile	Ser	Asn	Leu	Gly	Met	Phe	Gly	435	440	445
Ile	Lys	Asn	Phe	Ser	Ala	Ile	Ile	Asn	Pro	Pro	Gln	Ala	Cys	Ile	Leu	450	455	460
Ala	Ile	Gly	Ala	Ser	Glu	Asp	Lys	Leu	Val	Pro	Ala	Asp	Asn	Glu	Lys	465	470	475
Gly	Phe	Asp	Val	Ala	Ser	Met	Met	Ser	Val	Thr	Leu	Ser	Cys	Asp	His	485	490	495
Arg	Val	Val	Asp	Gly	Ala	Val	Gly	Ala	Gln	Trp	Leu	Ala	Glu	Phe	Arg	500	505	510
Lys	Tyr	Leu	Glu	Lys	Pro	Ile	Thr	Met	Leu	Leu						515	520	

699

&lt;210&gt; 722

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 722

Ser	Ser	Arg	Ser	Arg	Ala	Ala	Asp	Glu	Xaa	Ala	Leu	Cys	Leu	Gln	Cys
1				5					10				15		

Asp	Met	Asn	Asp	Cys	Tyr	Ser	Arg	Leu	Arg	Arg	Leu	Val	Pro	Thr	Ile
		20						25					30		

Pro	Pro	Asn	Lys	Lys	Val	Ser	Lys	Val	Glu	Ile	Leu	Gln	His	Val	Ile
		35					40					45			

Asp	Tyr	Ile	Leu	Asp	Leu	Gln	Leu	Ala	Leu	Glu	Thr	His	Pro	Ala	Leu
	50					55					60				

Leu	Arg	Gln	Pro	Pro	Pro	Pro	Ala	Pro	Pro	His	His	Pro	Ala	Gly	Thr
65					70					75					80

Cys	Pro	Ala	Ala	Pro	Pro	Arg	Thr	Pro	Leu	Thr	Ala	Leu	Asn	Thr	Asp
				85					90					95	

Pro	Ala	Gly	Ala	Val	Asn	Lys	Gln	Gly	Asp	Ser	Ile	Leu	Cys	Arg	
		100						105					110		

&lt;210&gt; 723

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 723

Ser	Gly	Gly	Gly	Gly	Gly	Arg	Met	Ile	Lys	Leu	Phe	Ser	Leu	Lys	Gln
1					5				10					15	

Gln	Lys	Lys	Glu	Glu	Glu	Ser	Ala	Gly	Gly	Thr	Lys	Gly	Ser	Ser	Lys
			20					25					30		

Lys	Ala	Ser	Ala	Ala	Gln	Leu	Arg	Ile	Gln	Lys	Asp	Ile	Asn	Glu	Leu
		35					40					45			

Asn	Leu	Pro	Lys	Thr	Cys	Asp	Ile	Ser	Phe	Ser	Asp	Pro	Asp	Asp	Leu
	50					55					60				

700

Leu Asn Phe Lys Leu Val Ile Cys Pro Asp Glu Gly Phe Tyr Lys Ser  
65 70 75 80

Gly Lys Phe Val Phe Ser Phe Lys Val Gly Gln Gly Tyr Pro His Asp  
85 90 95

Pro Pro Lys Val Lys Cys Glu Thr Met Val Tyr His Pro Asn Ile Asp  
100 105 110

Leu Glu Gly Asn Val Cys Leu Asn Ile Leu Arg Glu Asp Trp Lys Pro  
115 120 125

Val Leu Thr Ile Asn Ser Ile Ile Tyr Gly Leu Gln Tyr Leu Phe Leu  
130 135 140

Glu Pro Asn Pro Glu Asp Pro Leu Asn Lys Glu Ala Ala Glu Val Leu  
145 150 155 160

Gln Asn Asn Arg Arg Leu Phe Glu Gln Asn Val Gln Arg Ser Met Arg  
165 170 175

Gly Gly Tyr Ile Gly Ser Thr Tyr Phe Glu Arg Cys Leu Lys  
180 185 190

&lt;210&gt; 724

&lt;211&gt; 524

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (247)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (417)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (440)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (443)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

701

&lt;400&gt; 724

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Arg Arg Arg Arg Ala Asp Arg Ala Thr Pro Arg Glu Val Leu Glu Thr
 1           5           10           15

Pro Gly Ala Ala Ser Val Gln Thr Leu Pro Ser Val Thr Met Lys Leu
          20           25           30

Trp Val Ser Ala Leu Leu Met Ala Trp Phe Gly Val Leu Ser Cys Val
          35           40           45

Gln Ala Glu Phe Phe Thr Ser Ile Gly His Met Thr Asp Leu Ile Tyr
 50           55           60

Ala Glu Lys Glu Leu Val Gln Ser Leu Lys Glu Tyr Ile Leu Val Glu
 65           70           75           80

Glu Ala Lys Leu Ser Lys Ile Lys Ser Trp Ala Asn Lys Met Glu Ala
          85           90           95

Leu Thr Ser Lys Ser Ala Ala Asp Ala Glu Gly Tyr Leu Ala His Pro
          100          105          110

Val Asn Ala Tyr Lys Leu Val Lys Arg Leu Asn Thr Asp Trp Pro Ala
          115          120          125

Leu Glu Asp Leu Val Leu Gln Asp Ser Ala Ala Gly Phe Ile Ala Asn
          130          135          140

Leu Ser Val Gln Arg Gln Phe Phe Pro Thr Asp Glu Asp Glu Ile Gly
          145          150          155          160

Ala Ala Lys Ala Leu Met Arg Leu Gln Asp Thr Tyr Arg Leu Asp Pro
          165          170          175

Gly Thr Ile Ser Arg Gly Glu Leu Pro Gly Thr Lys Tyr Gln Ala Met
          180          185          190

Leu Ser Val Asp Asp Cys Phe Gly Met Gly Arg Ser Ala Tyr Asn Glu
          195          200          205

Gly Asp Tyr Tyr His Thr Val Leu Trp Met Glu Gln Val Leu Lys Gln
          210          215          220

Leu Asp Ala Gly Glu Glu Ala Thr Thr Thr Lys Ser Gln Val Leu Asp
          225          230          235          240

Tyr Leu Ser Tyr Ala Val Xaa Gln Leu Gly Asp Leu His Arg Ala Leu
          245          250          255

Glu Leu Thr Arg Arg Leu Leu Ser Leu Asp Pro Ser His Glu Arg Ala

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702

260	265	270
Gly Gly Asn Leu Arg Tyr Phe	Glu Gln Leu Leu Glu Glu Glu Arg Glu	
275	280	285
Lys Thr Leu Thr Asn Gln Thr	Glu Ala Glu Leu Ala Thr Pro Glu Gly	
290	295	300
Ile Tyr Glu Arg Pro Val Asp Tyr	Leu Pro Glu Arg Asp Val Tyr Glu	
305	310	315
Ser Leu Cys Arg Gly Glu Gly Val	Lys Leu Thr Pro Arg Arg Gln Lys	
325	330	335
Arg Leu Phe Cys Arg Tyr His His	Gly Asn Arg Ala Pro Gln Leu Leu	
340	345	350
Ile Ala Pro Phe Lys Glu Glu Asp	Glu Trp Asp Ser Pro His Ile Val	
355	360	365
Arg Tyr Tyr Asp Val Met Ser Asp	Glu Glu Ile Glu Arg Ile Lys Glu	
370	375	380
Ile Ala Lys Pro Lys Leu Ala Arg	Ala Thr Val Arg Asp Pro Lys Thr	
385	390	395
Gly Val Leu Thr Val Ala Ser Tyr	Arg Val Ser Lys Ser Ser Trp Leu	
405	410	415
Xaa Glu Asp Asp Asp Pro Val Val	Ala Arg Val Asn Arg Arg Met Gln	
420	425	430
His Ile Thr Gly Leu Thr Val Xaa	Thr Ala Xaa Leu Leu Gln Val Ala	
435	440	445
Asn Tyr Gly Val Gly Gly Gln Tyr	Glu Pro His Phe Asp Phe Ser Arg	
450	455	460
Asn Asp Glu Arg Asp Thr Phe Lys	His Leu Gly Thr Gly Asn Arg Val	
465	470	475
Ala Thr Phe Leu Asn Tyr Met Ser	Asp Val Glu Ala Gly Gly Ala Thr	
485	490	495
Val Phe Pro Asp Leu Gly Ala Ala	Ile Trp Pro Lys Lys Gly Thr Ala	
500	505	510
Val Phe Trp Tyr Asn Leu Leu Arg	Ser Gly Arg Arg	
515	520	

703

&lt;210&gt; 725

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 725

Leu Lys Met Thr Ser Leu Phe Ala Gln Glu Ile Arg Leu Ser Lys Arg  
1 5 10 15

His Glu Glu Ile Val Ser Gln Arg Leu Met Leu Leu Gln Gln Met Glu  
20 25 30

Asn Lys Leu Gly Asp Gln His Thr Glu Lys Ala Ser Gln Leu Gln Thr  
35 40 45

Val Glu Thr Ala Phe Lys Arg Asn Leu Ser Leu Leu Lys Asp Ile Glu  
50 55 60

Ala Ala Glu Lys Ser Leu Gln Thr Arg Ile His Pro Leu Pro Arg Pro  
65 70 75 80

Glu Val Val Ser Leu Glu Thr Arg Tyr Trp Ala Ser  
85 90

&lt;210&gt; 726

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (108)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (123)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (383)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (688)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

704

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (690)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 726

Val	Ser	Arg	Ser	Pro	Arg	Val	Pro	Leu	Pro	Pro	Arg	Ser	Phe	Ser	Arg	1	5	10	15
Met	Ala	Gly	Asp	Ser	Thr	Ala	Thr	Ser	Arg	Arg	Leu	Gly	Ala	Ala	Pro	20	25	30	
Asp	Arg	Ala	Ala	Pro	His	Ile	Leu	Pro	Ala	Gly	Ala	His	Arg	Ala	Ala	35	40	45	
Thr	Ala	Pro	Gly	Leu	Gly	Gly	Gly	Pro	Glu	Pro	Leu	Gly	Arg	Ala	Leu	50	55	60	
Ala	Gly	Gly	Leu	Arg	Gly	Pro	Gln	Gly	Asn	Gly	Trp	Leu	Gln	Glu	Arg	65	70	75	80
Lys	Arg	Arg	Cys	Pro	Gly	Leu	Ala	Gly	Cys	Phe	Glu	Ala	Ile	Ser	Cys	85	90	95	
Gly	Thr	Gly	Leu	Gly	Leu	Pro	Gly	Leu	Ala	Leu	Xaa	Arg	Glu	Leu	Ile	100	105	110	
Ser	Trp	Gly	Ala	Pro	Gly	Ser	Ala	Asp	Ser	Xaa	Arg	Leu	Leu	His	Trp	115	120	125	
Gly	Ser	His	Pro	Thr	Ala	Phe	Val	Val	Ser	Tyr	Ala	Ala	Ala	Leu	Pro	130	135	140	
Ala	Ala	Ala	Leu	Trp	His	Lys	Leu	Gly	Ser	Leu	Trp	Val	Pro	Gly	Gly	145	150	155	160
Gln	Gly	Gly	Ser	Gly	Asn	Pro	Val	Arg	Arg	Leu	Leu	Gly	Cys	Leu	Gly	165	170	175	
Ser	Glu	Thr	Arg	Arg	Leu	Ser	Leu	Phe	Leu	Val	Leu	Val	Val	Leu	Ser	180	185	190	
Ser	Leu	Gly	Glu	Met	Ala	Ile	Pro	Phe	Phe	Thr	Gly	Arg	Leu	Thr	Asp	195	200	205	
Trp	Ile	Leu	Gln	Asp	Gly	Ser	Ala	Asp	Thr	Phe	Thr	Arg	Asn	Leu	Thr	210	215	220	
Leu	Met	Ser	Ile	Leu	Thr	Ile	Ala	Ser	Ala	Val	Leu	Glu	Phe	Val	Gly	225	230	235	240



Asp	Gly	Ile	Tyr	Asn	Asn	Thr	Met	Gly	His	Val	His	Ser	His	Leu	Gln	245	250	255	
Gly	Glu	Val	Phe	Gly	Ala	Val	Leu	Arg	Gln	Glu	Thr	Glu	Phe	Phe	Gln	260	265	270	
Gln	Asn	Gln	Thr	Gly	Asn	Ile	Met	Ser	Arg	Val	Thr	Glu	Asp	Thr	Ser	275	280	285	
Thr	Leu	Ser	Asp	Ser	Leu	Ser	Glu	Asn	Leu	Ser	Leu	Phe	Leu	Trp	Tyr	290	295	300	
Leu	Val	Arg	Gly	Leu	Cys	Leu	Leu	Gly	Ile	Met	Leu	Trp	Gly	Ser	Val	305	310	315	320
Ser	Leu	Thr	Met	Val	Thr	Leu	Ile	Thr	Leu	Pro	Leu	Leu	Phe	Leu	Leu	325	330	335	
Pro	Lys	Lys	Val	Gly	Lys	Trp	Tyr	Gln	Leu	Leu	Glu	Val	Gln	Val	Arg	340	345	350	
Glu	Ser	Leu	Ala	Lys	Ser	Ser	Gln	Val	Ala	Ile	Glu	Ala	Leu	Ser	Ala	355	360	365	
Met	Pro	Thr	Val	Arg	Ser	Phe	Ala	Asn	Glu	Glu	Gly	Glu	Ala	Xaa	Lys	370	375	380	
Phe	Arg	Glu	Lys	Leu	Gln	Glu	Ile	Lys	Thr	Leu	Asn	Gln	Lys	Glu	Ala	385	390	395	400
Val	Ala	Tyr	Ala	Val	Asn	Ser	Trp	Thr	Thr	Ser	Ile	Ser	Gly	Met	Leu	405	410	415	
Leu	Lys	Val	Gly	Ile	Leu	Tyr	Ile	Gly	Gly	Gln	Leu	Val	Thr	Ser	Gly	420	425	430	
Ala	Val	Ser	Ser	Gly	Asn	Leu	Val	Thr	Phe	Val	Leu	Tyr	Gln	Met	Gln	435	440	445	
Phe	Thr	Gln	Ala	Val	Glu	Val	Leu	Leu	Ser	Ile	Tyr	Pro	Arg	Val	Gln	450	455	460	
Lys	Ala	Val	Gly	Ser	Ser	Glu	Lys	Ile	Phe	Glu	Tyr	Leu	Asp	Arg	Thr	465	470	475	480
Pro	Arg	Cys	Pro	Pro	Ser	Gly	Leu	Leu	Thr	Pro	Leu	His	Leu	Glu	Gly	485	490	495	
Leu	Val	Gln	Phe	Gln	Asp	Val	Ser	Phe	Ala	Tyr	Pro	Asn	Arg	Pro	Asp	500	505	510	

Val	Leu	Val	Leu	Gln	Gly	Leu	Thr	Phe	Thr	Leu	Arg	Pro	Gly	Glu	Val
515						520						525			
Thr	Ala	Leu	Val	Gly	Pro	Asn	Gly	Ser	Gly	Lys	Ser	Thr	Val	Ala	Ala
530						535						540			
Leu	Leu	Gln	Asn	Leu	Tyr	Gln	Pro	Thr	Gly	Gly	Gln	Leu	Leu	Leu	Asp
545						550						555			
Gly	Lys	Pro	Leu	Pro	Gln	Tyr	Glu	His	Arg	Tyr	Leu	His	Arg	Gln	Val
			565						570						
Ala	Ala	Val	Gly	Gln	Glu	Pro	Gln	Val	Phe	Gly	Arg	Ser	Leu	Gln	Glu
			580						585			590			
Asn	Ile	Ala	Tyr	Gly	Leu	Thr	Gln	Lys	Pro	Thr	Met	Glu	Glu	Ile	Thr
595						600						605			
Ala	Ala	Ala	Val	Lys	Ser	Gly	Ala	His	Ser	Phe	Ile	Ser	Gly	Leu	Pro
610						615						620			
Gln	Gly	Tyr	Asp	Thr	Glu	Val	Asp	Glu	Ala	Gly	Ser	Gln	Leu	Ser	Gly
625						630						635			
Gly	Gln	Arg	Gln	Ala	Val	Ala	Leu	Ala	Arg	Ala	Leu	Ile	Arg	Lys	Pro
			645						650						
Cys	Val	Leu	Ile	Leu	Asp	Asp	Ala	Thr	Ser	Ala	Leu	Asp	Ala	Asn	Ser
			660						665			670			
Gln	Leu	Gln	Val	Glu	Gln	Leu	Leu	Tyr	Glu	Ser	Pro	Glu	Arg	Tyr	Xaa
675						680						685			
Arg	Xaa														
690															

707

&lt;222&gt; (73)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 727

Thr	Pro	Pro	Leu	Val	Ser	Ser	Val	Ala	Ala	Leu	Asp	Ser	His	Arg	Ser
1				5					10					15	

Thr	Asn	Pro	Ile	Val	Asn	Ser	Ala	Cys	Lys	Gly	Ser	Arg	Leu	Cys	Ala
			20					25					30		

Pro	Tyr	Glu	Asn	Leu	Met	Pro	Asp	Asp	Leu	Arg	Xaa	Asn	Ser	Phe	Ile
		35					40					45			

Leu	Lys	Pro	Pro	Phe	Thr	Leu	Gln	Ser	Val	Glu	Lys	Leu	Ser	Ser	Thr
	50					55					60				

Lys	Leu	Val	Pro	Gly	Ala	Lys	Asn	Xaa	Gly	Asp	Arg	Cys	Ser	Arg	Glu
65					70					75					80

Arg Ser

&lt;210&gt; 728

&lt;211&gt; 600

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (479)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (550)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (588)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

708

&lt;222&gt; (590)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 728

Ser	Arg	Val	Lys	Pro	Arg	Val	Arg	Gly	Thr	Xaa	Val	Arg	Thr	Pro	Gly
1				5					10					15	

Ser	Arg	Arg	Gly	Arg	His	Gly	Ala	Val	Pro	Gly	Asp	Trp	Glu	Ala	Ala
			20					25					30		

Ala	Gln	Ala	Arg	Gly	Ala	Gly	Gln	Arg	Leu	Pro	Thr	Pro	Ser	Glu	Ile
		35					40					45			

Leu	Ser	Asn	Ala	Gly	Leu	Arg	Phe	Glu	Val	Val	Pro	Ser	Lys	Phe	Lys
	50					55					60				

Glu	Lys	Leu	Asp	Lys	Ala	Ser	Phe	Ala	Thr	Pro	Tyr	Gly	Tyr	Ala	Met
65					70					75					80

Glu	Thr	Ala	Lys	Gln	Lys	Ala	Leu	Glu	Val	Ala	Asn	Arg	Leu	Tyr	Gln
				85					90					95	

Lys	Asp	Leu	Arg	Ala	Pro	Asp	Val	Val	Ile	Gly	Ala	Asp	Thr	Ile	Val
		100						105						110	

Thr	Val	Gly	Gly	Leu	Ile	Leu	Glu	Lys	Pro	Val	Asp	Lys	Gln	Asp	Ala
		115					120					125			

Tyr	Arg	Met	Leu	Ser	Arg	Leu	Ser	Gly	Arg	Glu	His	Ser	Val	Phe	Thr
	130					135					140				

Gly	Val	Ala	Ile	Val	His	Cys	Ser	Ser	Lys	Asp	His	Gln	Leu	Asp	Thr
145					150					155					160

Arg	Val	Ser	Glu	Phe	Tyr	Glu	Glu	Thr	Lys	Val	Lys	Phe	Ser	Glu	Leu
				165					170					175	

Ser	Glu	Glu	Leu	Leu	Trp	Glu	Tyr	Val	His	Ser	Gly	Glu	Pro	Met	Asp
			180					185					190		

Lys	Ala	Gly	Gly	Tyr	Gly	Ile	Gln	Ala	Leu	Gly	Gly	Met	Leu	Val	Glu
		195					200					205			

Ser	Val	His	Gly	Asp	Phe	Leu	Asn	Val	Val	Gly	Phe	Pro	Leu	Asn	His
	210					215					220				

Phe	Cys	Lys	Gln	Leu	Val	Lys	Leu	Tyr	Tyr	Pro	Pro	Arg	Pro	Glu	Asp
225					230					235				240	

Leu	Arg	Arg	Ser	Val	Lys	His	Asp	Ser	Ile	Pro	Ala	Ala	Asp	Thr	Phe
				245					250					255	

Glu	Asp	Leu	Ser	Asp	Val	Glu	Gly	Gly	Gly	Ser	Glu	Pro	Thr	Gln	Arg		
			260						265					270			
Asp	Ala	Gly	Ser	Arg	Asp	Glu	Lys	Ala	Glu	Ala	Gly	Glu	Ala	Gly	Gln		
		275					280					285					
Ala	Thr	Ala	Glu	Ala	Glu	Cys	His	Arg	Thr	Arg	Glu	Thr	Leu	Pro	Pro		
		290				295					300						
Phe	Pro	Thr	Arg	Leu	Leu	Glu	Leu	Ile	Glu	Gly	Phe	Met	Leu	Ser	Lys		
305					310					315					320		
Gly	Leu	Leu	Thr	Ala	Cys	Lys	Leu	Lys	Val	Phe	Asp	Leu	Leu	Lys	Asp		
				325					330					335			
Glu	Ala	Pro	Gln	Lys	Ala	Ala	Asp	Ile	Ala	Ser	Lys	Val	Asp	Ala	Ser		
			340					345					350				
Ala	Cys	Gly	Met	Glu	Arg	Leu	Leu	Asp	Ile	Cys	Ala	Ala	Met	Gly	Leu		
		355					360					365					
Leu	Glu	Lys	Thr	Glu	Gln	Gly	Tyr	Ser	Asn	Thr	Glu	Thr	Ala	Asn	Val		
		370				375					380						
Tyr	Leu	Ala	Ser	Asp	Gly	Glu	Tyr	Ser	Leu	His	Gly	Phe	Ile	Met	His		
385					390					395					400		
Asn	Asn	Asp	Leu	Thr	Trp	Asn	Leu	Phe	Thr	Tyr	Leu	Glu	Phe	Ala	Ile		
			405						410					415			
Arg	Glu	Gly	Thr	Asn	Gln	His	His	Arg	Ala	Leu	Gly	Lys	Lys	Ala	Glu		
			420					425					430				
Asp	Leu	Phe	Gln	Asp	Ala	Tyr	Tyr	Gln	Ser	Pro	Glu	Thr	Arg	Leu	Arg		
		435					440					445					
Phe	Met	Arg	Ala	Met	His	Gly	Met	Thr	Lys	Leu	Thr	Ala	Cys	Gln	Val		
		450				455					460						
Ala	Thr	Ala	Phe	Asn	Leu	Ser	Arg	Phe	Ser	Ser	Ala	Cys	Asp	Xaa	Gly		
465					470					475					480		
Gly	Cys	Thr	Gly	Ala	Leu	Ala	Arg	Glu	Leu	Ala	Arg	Glu	Tyr	Pro	Arg		
				485				490						495			
Met	Gln	Val	Thr	Val	Phe	Asp	Leu	Pro	Asp	Ile	Ile	Glu	Leu	Ala	Ala		
			500					505					510				
His	Phe	Gln	Pro	Pro	Gly	Pro	Gln	Gln	Cys	Arg	Ser	Thr	Ser	Gln	Gln		
		515					520					525					

710

Val Thr Phe Ser Gly Thr Pro Ser Pro Ala Leu Ser Cys Thr Ser Cys  
 530 535 540

Ala Gly Ser Cys Met Xaa Gly Gln Thr Thr Lys Ser Thr Ser Tyr Ser  
 545 550 555 560

Ala Gly Ser Pro Arg Ala Ala Ser Gln Gly Pro Ala Cys Cys Trp Trp  
 565 570 575

Arg Arg Ser Trp Met Arg Arg Arg Gly Trp Arg Xaa Arg Xaa Asp Ala  
 580 585 590

Val Thr Glu His Ala Gly Ala Asp  
 595 600

&lt;210&gt; 729

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 729

Gly Arg Ser Ser Phe Thr Ser Leu Val Val Gly Val Phe Val Val Tyr  
 1 5 10 15

Val Val His Thr Cys Trp Val Met Tyr Gly Ile Val Tyr Thr Arg Pro  
 20 25 30

Cys Ser Gly Asp Ala Asn Cys Ile Gln Pro Tyr Leu Ala Arg Arg Pro  
 35 40 45

Lys Leu Gln Leu Ser Val Tyr Thr Thr Thr Arg Ser His Leu Gly Ala  
 50 55 60

Glu Asn Asn Ile Asp Leu Val Leu Asn Val Glu Asp Phe Asp Val Glu  
 65 70 75 80

Ser Lys Phe Glu Arg Thr Val Asn Val Ser Val Pro Lys Lys Thr Arg  
 85 90 95

Asn Asn Gly Thr Leu Tyr Ala Tyr Ile Phe Leu His His Ala Gly Val  
 100 105 110

Leu Pro Trp His Asp Gly Lys Gln Val His Leu Val Ser Pro Leu Thr  
 115 120 125

Thr Tyr Met Val Pro Lys Pro Glu Glu Ile Asn Leu Leu Thr Gly Glu  
 130 135 140

Ser	Asp	Thr	Gln	Gln	Ile	Glu	Ala	Glu	Lys	Lys	Pro	Thr	Ser	Ala	Leu	145	150	155	160
Asp	Glu	Pro	Val	Ser	His	Trp	Arg	Pro	Arg	Leu	Ala	Leu	Asn	Val	Met	165	170	175	
Ala	Asp	Asn	Phe	Val	Phe	Asp	Gly	Ser	Ser	Leu	Pro	Ala	Asp	Val	His	180	185	190	
Arg	Tyr	Met	Lys	Met	Ile	Gln	Leu	Gly	Lys	Thr	Val	His	Tyr	Leu	Pro	195	200	205	
Ile	Leu	Phe	Ile	Asp	Gln	Leu	Ser	Asn	Arg	Val	Lys	Asp	Leu	Met	Val	210	215	220	
Ile	Asn	Arg	Ser	Thr	Thr	Glu	Leu	Pro	Leu	Thr	Val	Ser	Tyr	Asp	Lys	225	230	235	240
Val	Ser	Leu	Gly	Arg	Leu	Arg	Phe	Trp	Ile	His	Met	Gln	Asp	Ala	Val	245	250	255	
Tyr	Ser	Leu	Gln	Gln	Phe	Gly	Phe	Ser	Glu	Lys	Asp	Ala	Asp	Glu	Val	260	265	270	
Lys	Gly	Ile	Phe	Val	Asp	Thr	Asn	Leu	Tyr	Phe	Leu	Ala	Leu	Thr	Phe	275	280	285	
Phe	Val	Ala	Ala	Phe	His	Leu	Leu	Phe	Asp	Phe	Leu	Ala	Phe	Lys	Asn	290	295	300	
Asp	Ile	Ser	Phe	Trp	Lys	Lys	Lys	Lys	Ser	Met	Ile	Gly	Met	Ser	Thr	305	310	315	320
Lys	Ala	Val	Leu	Trp	Arg	Cys	Phe	Ser	Thr	Val	Val	Ile	Phe	Leu	Phe	325	330	335	
Leu	Leu	Asp	Glu	Gln	Thr	Ser	Leu	Leu	Val	Leu	Val	Pro	Ala	Gly	Val	340	345	350	
Gly	Ala	Ala	Ile	Glu	Leu	Trp	Lys	Val	Lys	Lys	Ala	Leu	Lys	Met	Thr	355	360	365	
Ile	Phe	Trp	Arg	Gly	Leu	Met	Pro	Glu	Phe	Gln	Phe	Gly	Thr	Tyr	Ser	370	375	380	
Glu	Ser	Glu	Arg	Lys	Thr	Glu	Glu	Tyr	Asp	Thr	Gln	Ala	Met	Lys	Tyr	385	390	395	400
Leu	Ser	Tyr	Leu	Leu	Tyr	Pro	Leu	Cys	Val	Gly	Gly	Ala	Val	Tyr	Ser	405	410	415	

712

Leu Leu Asn Ile Lys Tyr Lys Ser Trp Tyr Ser Trp Leu Ile Asn Ser  
 420 425 430

Phe Val Asn Gly Val Tyr Ala Phe Gly Phe Leu Phe Met Leu Pro Gln  
 435 440 445

Leu Phe Val Asn Tyr Lys Leu Lys Ser Val Ala His Leu Pro Trp Lys  
 450 455 460

Ala Phe Thr Tyr Lys Ala Phe Asn Thr Phe Ile Asp Asp Val Phe Ala  
 465 470 475 480

Phe Ile Ile Thr Met Pro Thr Ser His Arg Leu Ala Cys Phe Arg Asp  
 485 490 495

Asp Val Val Phe Leu Val Tyr Leu Tyr Gln Arg Trp Leu Tyr Pro Val  
 500 505 510

Asp Lys Arg Arg Val Asn Glu Phe Gly Glu Ser Tyr Glu Glu Lys Ala  
 515 520 525

Thr Arg Ala Pro His Thr Asp  
 530 535

&lt;210&gt; 730

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 730

Arg Pro Ala Gly Val Thr Glu Leu Gln Pro Arg Ala Pro Gly Gly Gly  
 1 5 10 15

Gly Met Glu Ala Ala Glu Pro Gly Asn Leu Ala Gly Val Arg His  
 20 25 30

Ile Ile Leu Val Leu Ser Gly Lys Gly Gly Val Gly Lys Ser Thr Ile  
 35 40 45

Ser Thr Glu Leu Ala Leu Ala Leu Arg His Ala Gly Lys Lys Val Gly  
 50 55 60

Ile Leu Asp Val Asp Leu Cys Gly Pro Ser Ile Pro Arg Met Leu Gly  
 65 70 75 80

Ala Gln Gly Arg Ala Val His Gln Cys Asp Arg Gly Trp Ala Pro Val  
 85 90 95

Phe Leu Asp Arg Glu Gln Ser Ile Ser Leu Met Ser Val Gly Phe Leu



713

100	105	110
Leu Glu Lys Pro Asp Glu Ala Val Val Trp Arg Gly Pro Lys Lys Asn		
115	120	125
Ala Leu Ile Lys Gln Phe Val Ser Asp Val Ala Trp Gly Glu Leu Asp		
130	135	140
Tyr Leu Val Val Asp Thr Pro Pro Gly Thr Ser Asp Glu His Met Ala		
145	150	155
Thr Ile Glu Ala Leu Arg Pro Tyr Gln Pro Leu Gly Ala Leu Val Val		
165	170	175
Thr Thr Pro Gln Ala Val Ser Val Gly Asp Val Arg Arg Glu Leu Thr		
180	185	190
Phe Cys Arg Lys Thr Gly Leu Arg Val Met Gly Ile Val Glu Asn Met		
195	200	205
Ser Gly Phe Thr Cys Pro His Cys Thr Glu Cys Thr Ser Val Phe Ser		
210	215	220
Arg Gly Gly Gly Glu Glu Leu Ala Gln Leu Ala Gly Val Pro Phe Leu		
225	230	235
Gly Ser Val Pro Leu Asp Pro Ala Leu Met Arg Thr Leu Glu Glu Gly		
245	250	255
His Asp Phe Ile Gln Glu Phe Pro Gly Ser Pro Ala Phe Ala Ala Leu		
260	265	270
Thr Ser Ile Ala Gln Lys Ile Leu Asp Ala Thr Pro Ala Cys Leu Pro		
275	280	285

&lt;210&gt; 731

&lt;211&gt; 737

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 731

Asp Gln Leu Cys Gly Pro Gln Thr Tyr Lys Glu His Leu Glu Gly Gln
1 5 10 15

Lys His Lys Lys Lys Glu Ala Ala Leu Lys Ala Ser Gln Asn Thr Ser
20 25 30

714

Ser	Ser	Asn	Ser	Ser	Thr	Arg	Gly	Thr	Gln	Asn	Gln	Leu	Arg	Cys	Glu	35	40	45	
Leu	Cys	Asp	Val	Ser	Cys	Thr	Gly	Ala	Asp	Ala	Tyr	Ala	Ala	His	Ile	50	55	60	
Arg	Gly	Ala	Lys	His	Gln	Lys	Val	Val	Lys	Leu	His	Thr	Lys	Leu	Gly	65	70	75	80
Lys	Pro	Ile	Pro	Ser	Thr	Glu	Pro	Asn	Val	Val	Ser	Gln	Ala	Thr	Ser	85	90	95	
Ser	Thr	Ala	Val	Ser	Ala	Ser	Lys	Pro	Thr	Ala	Ser	Pro	Ser	Ser	Ile	100	105	110	
Ala	Ala	Asn	Asn	Cys	Thr	Val	Asn	Thr	Ser	Ser	Ile	Ala	Thr	Ser	Ser	115	120	125	
Met	Lys	Gly	Leu	Thr	Thr	Thr	Gly	Asn	Ser	Ser	Leu	Asn	Ser	Thr	Ser	130	135	140	
Asn	Thr	Lys	Val	Ser	Ala	Val	Pro	Thr	Asn	Met	Ala	Ala	Lys	Lys	Thr	145	150	155	160
Ser	Thr	Pro	Lys	Ile	Asn	Phe	Val	Gly	Gly	Asn	Lys	Leu	Gln	Ser	Thr	165	170	175	
Gly	Asn	Lys	Ala	Glu	Asp	Thr	Lys	Gly	Thr	Glu	Cys	Val	Lys	Ser	Thr	180	185	190	
Pro	Val	Thr	Ser	Ala	Val	Gln	Ile	Pro	Glu	Val	Lys	Gln	Asp	Thr	Val	195	200	205	
Ser	Glu	Pro	Val	Thr	Pro	Ala	Ser	Leu	Ala	Ala	Leu	Gln	Ser	Asp	Val	210	215	220	
Gln	Pro	Val	Gly	His	Asp	Tyr	Val	Glu	Glu	Val	Arg	Asn	Asp	Glu	Gly	225	230	235	240
Lys	Val	Ile	Arg	Phe	His	Cys	Lys	Leu	Cys	Glu	Cys	Ser	Phe	Asn	Asp	245	250	255	
Pro	Asn	Ala	Lys	Glu	Met	His	Leu	Lys	Gly	Arg	Arg	His	Arg	Leu	Gln	260	265	270	
Tyr	Lys	Lys	Lys	Val	Asn	Pro	Asp	Leu	Gln	Val	Glu	Val	Lys	Pro	Ser	275	280	285	
Ile	Arg	Ala	Arg	Lys	Ile	Gln	Glu	Glu	Lys	Met	Arg	Lys	Gln	Met	Gln	290	295	300	

715

Lys Glu Glu Tyr Trp Arg Arg Arg Glu Glu Glu Glu Arg Trp Arg Met  
 305 310 315 320  
 Glu Met Arg Arg Tyr Glu Glu Asp Met Tyr Trp Arg Arg Met Glu Glu  
 325 330 335  
 Glu Gln His His Trp Asp Asp Arg Arg Arg Met Pro Asp Gly Gly Tyr  
 340 345 350  
 Pro His Gly Pro Pro Gly Pro Leu Gly Leu Leu Gly Val Arg Pro Gly  
 355 360 365  
 Met Pro Pro Gln Pro Gln Gly Pro Ala Pro Leu Arg Arg Pro Asp Ser  
 370 375 380  
 Ser Asp Asp Arg Tyr Val Met Thr Lys His Ala Thr Ile Tyr Pro Thr  
 385 390 395 400  
 Glu Glu Glu Leu Gln Ala Val Gln Lys Ile Val Ser Ile Thr Glu Arg  
 405 410 415  
 Ala Leu Lys Leu Val Ser Asp Ser Leu Ser Glu His Glu Lys Asn Lys  
 420 425 430  
 Asn Lys Glu Gly Asp Asp Lys Lys Glu Gly Gly Lys Asp Arg Ala Leu  
 435 440 445  
 Lys Gly Val Leu Arg Val Gly Val Leu Ala Lys Gly Leu Leu Leu Arg  
 450 455 460  
 Gly Asp Arg Asn Val Asn Leu Val Leu Leu Cys Ser Glu Lys Pro Ser  
 465 470 475 480  
 Lys Thr Leu Leu Ser Arg Ile Ala Glu Asn Leu Pro Lys Gln Leu Ala  
 485 490 495  
 Val Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala  
 500 505 510  
 Ala Ile Ile Leu Asn Ser Cys Val Glu Pro Lys Met Gln Val Thr Ile  
 515 520 525  
 Thr Leu Thr Ser Pro Ile Ile Arg Glu Glu Asn Met Arg Glu Gly Asp  
 530 535 540  
 Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp Val Leu Asp Arg Gln  
 545 550 555 560  
 Lys Cys Leu Asp Ala Leu Ala Ala Leu Arg His Ala Lys Trp Phe Gln  
 565 570 575

716

Ala Arg Ala Asn Gly Leu Gln Ser Cys Val Ile Ile Ile Arg Ile Leu  
                   580                  585                  590  
 Arg Asp Leu Cys Gln Arg Val Pro Thr Trp Ser Asp Phe Pro Ser Trp  
                   595                  600                  605  
 Ala Met Glu Leu Leu Val Glu Lys Ala Ile Ser Ser Ala Ser Ser Pro  
                   610                  615                  620  
 Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser  
                   625                  630                  635                  640  
 Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys  
                   645                  650                  655  
 Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp  
                   660                  665                  670  
 Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln  
                   675                  680                  685  
 Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg  
                   690                  695                  700  
 Phe Asn Ile His Asn Asn Arg Lys Arg Arg Arg Asp Ser Asp Gly Val  
                   705                  710                  715                  720  
 Asp Gly Phe Glu Ala Glu Gly Lys Lys Asp Lys Lys Asp Tyr Asp Asn  
                   725                  730                  735  
 Phe

&lt;210&gt; 732

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 732

Gly Arg Gly Leu Asn Ser Pro Lys Glu Leu Arg Pro Leu Thr Arg Ala  
   1                  5                  10                  15  
 Ala Pro Ala Ala Ala Ala Cys Thr Gly Pro Gly Ala Ala Met Pro Lys  
                   20                  25                  30  
 Cys Pro Lys Cys Asn Lys Glu Val Tyr Phe Ala Glu Arg Val Thr Ser  
                   35                  40                  45

717

Leu Gly Lys Asp Trp His Arg Pro Cys Leu Lys Cys Glu Lys Cys Gly  
     50                    55                    60  
 Lys Thr Leu Thr Ser Gly Gly His Ala Glu His Glu Gly Lys Pro Tyr  
     65                    70                    75                    80  
 Cys Asn His Pro Cys Tyr Ala Ala Met Phe Gly Pro Lys Gly Phe Gly  
                     85                    90                    95  
 Arg Gly Gly Ala Glu Ser His Thr Phe Lys  
             100                    105

&lt;210&gt; 733

&lt;211&gt; 230

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 733

Ala Ser Cys Leu Gln Ser Val Ala Ser Ala Cys Ala Ser Phe Pro Ala  
     1                    5                    10                    15  
 Pro Ser Trp Arg Gly Thr Arg Lys Arg Asn Ala Thr Asp Arg Val Thr  
             20                    25                    30  
 Gln Cys Lys Tyr Lys Arg Ile Gly Cys Pro Trp His Gly Pro Phe His  
             35                    40                    45  
 Glu Leu Thr Val His Glu Ala Ala Cys Ala His Pro Thr Lys Thr Gly  
             50                    55                    60  
 Ser Glu Leu Met Glu Ile Leu Asp Gly Met Asp Gln Ser His Arg Lys  
     65                    70                    75                    80  
 Glu Met Gln Leu Tyr Asn Ser Ile Phe Ser Leu Leu Ser Phe Glu Lys  
                     85                    90                    95  
 Ile Gly Tyr Thr Glu Val Gln Phe Arg Pro Tyr Arg Thr Asp Asp Phe  
             100                    105                    110  
 Ile Thr Arg Leu Tyr Tyr Glu Thr Pro Arg Phe Thr Val Leu Asn Gln  
             115                    120                    125  
 Thr Trp Val Leu Lys Ala Arg Val Asn Asp Ser Glu Arg Asn Pro Asn  
     130                    135                    140  
 Leu Ser Cys Lys Arg Thr Leu Ser Phe Gln Leu Leu Lys Ser Lys  
     145                    150                    155                    160  
 Val Thr Ala Pro Leu Glu Cys Ser Phe Leu Leu Leu Lys Gly Pro Tyr

718

	165		170		175
Asp Asp Val Arg Ile Ser Pro Val Ile Tyr His Phe Val Phe Thr Asn					
	180		185		190
Glu Ser Asn Glu Thr Asp Tyr Val Pro Leu Pro Ile Ile Asp Ser Val					
	195		200		205
Glu Cys Asn Lys Leu Leu Ala Ala Lys Asn Ile Asn Leu Arg Leu Phe					
	210		215		220
Leu Phe Gln Ile Gln Lys					
	225		230		

&lt;210&gt; 734

&lt;211&gt; 222

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 734

Gly Arg Pro Ala Pro Pro Ala Ala Arg Ala Gly Ala His Ser Arg Gly					
1	5		10		15
Ala Xaa Ala Pro Pro Ala Ala Ile Asp Met Met Phe Pro Gln Ser Arg					
	20		25		30
His Ser Gly Ser Ser His Leu Pro Gln Gln Leu Lys Phe Thr Thr Ser					
	35		40		45
Asp Ser Cys Asp Arg Ile Lys Asp Glu Phe Gln Leu Leu Gln Ala Gln					
	50		55		60
Tyr His Ser Leu Lys Leu Glu Cys Asp Lys Leu Ala Ser Glu Lys Ser					
	65		70		75
Glu Met Gln Arg His Tyr Val Met Tyr Tyr Glu Met Ser Tyr Gly Leu					
	85		90		95
Asn Ile Glu Met His Lys Gln Ala Glu Ile Val Lys Arg Leu Asn Gly					
	100		105		110
Ile Cys Ala Gln Val Leu Pro Tyr Leu Ser Gln Glu His Gln Gln Gln					
	115		120		125

719

Val Leu Gly Ala Ile Glu Arg Ala Lys Gln Val Thr Ala Pro Glu Leu  
 130 135 140  
 Asn Ser Ile Ile Arg Gln Gln Leu Gln Ala His Gln Leu Ser Gln Leu  
 145 150 155 160  
 Gln Ala Leu Ala Leu Pro Leu Thr Pro Leu Pro Val Gly Leu Gln Pro  
 165 170 175  
 Pro Ser Leu Pro Ala Val Ser Ala Gly Thr Gly Leu Leu Ser Leu Ser  
 180 185 190  
 Ala Leu Gly Ser Gln Ala His Leu Ser Lys Glu Asp Lys Asn Gly His  
 195 200 205  
 Asp Gly Asp Thr His Gln Glu Asp Asp Gly Glu Lys Ser Asp  
 210 215 220

&lt;210&gt; 735

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 735

Gly Thr Ser Asp Met Glu Leu Phe Leu Ala Gly Arg Arg Val Leu Val  
 1 5 10 15  
 Thr Gly Ala Gly Lys Gly Ile Gly Arg Gly Thr Val Gln Ala Leu His  
 20 25 30  
 Ala Thr Gly Ala Arg Val Val Ala Val Ser Arg Thr Gln Ala Asp Leu  
 35 40 45  
 Asp Ser Leu Val Arg Glu Cys Pro Gly Ile Glu Pro Val Cys Val Asp  
 50 55 60  
 Leu Gly Asp Trp Glu Ala Thr Glu Arg Ala Leu Gly Ser Val Gly Pro  
 65 70 75 80  
 Val Asp Leu Leu Val Asn Asn Ala Ala Val Ala Leu Leu Gln Pro Phe  
 85 90 95  
 Leu Glu Val Thr Lys Glu Ala Phe Asp Arg Ser Phe Glu Val Asn Leu  
 100 105 110  
 Arg Ala Val Ile Gln Val Ser Gln Ile Val Ala Arg Gly Leu Ile Ala  
 115 120 125  
 Arg Gly Val Pro Gly Ala Ile Val Asn Val Ser Ser Gln Cys Ser Gln

720

130	135	140
Arg Ala Val Thr Asn His Ser Val Tyr Cys Ser Thr Lys Gly Ala Leu		
145	150	155 160
Asp Met Leu Thr Lys Val Met Ala Leu Glu Leu Gly Pro His Lys Ile		
	165	170 175
Arg Val Asn Ala Val Asn Pro Thr Val Val Met Thr Ser Met Gly Gln		
	180	185 190
Ala Thr Trp Ser Asp Pro His Lys Ala Lys Thr Met Leu Asn Arg Ile		
	195	200 205
Pro Leu Gly Lys Phe Ala Glu Val Glu His Val Val Asn Ala Ile Leu		
	210	215 220
Phe Leu Leu Ser Asp Arg Ser Gly Met Thr Thr Gly Ser Thr Leu Pro		
225	230	235 240
Val Glu Gly Gly Phe Trp Ala Cys		
	245	

&lt;210&gt; 736

&lt;211&gt; 216

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (61)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 736

Arg Leu Leu Phe Arg Val Arg Lys Arg Met Ile Ser Phe Ser Ala Pro		
1	5	10 15
Pro Leu Met Leu Pro Phe Ser Phe Tyr Phe Phe Val Phe Pro Val Ala		
	20	25 30
Arg Thr Ala Arg Lys Arg Lys Pro Ser Pro Glu Pro Glu Gly Glu Val		
	35	40 45
Gly Pro Pro Lys Ile Asn Gly Glu Ala Gln Pro Trp Xaa Ser Thr Ser		



721

50                      55                      60  
 Thr Glu Gly Xaa Lys Ile Pro Met Thr Pro Thr Ser Ser Phe Val Ser  
 65                      70                      75                      80  
 Pro Pro Pro Pro Thr Ala Ser Pro His Ser Asn Arg Thr Thr Pro Pro  
                     85                      90                      95  
 Glu Ala Ala Gln Asn Gly Gln Ser Pro Met Ala Ala Leu Ile Leu Val  
                     100                      105                      110  
 Ala Asp Asn Ala Gly Gly Ser His Ala Ser Lys Asp Ala Asn Gln Val  
                     115                      120                      125  
 His Ser Thr Thr Arg Arg Asn Ser Asn Ser Pro Pro Ser Pro Ser Ser  
                     130                      135                      140  
 Met Asn Gln Arg Arg Leu Gly Pro Arg Glu Val Gly Gly Gln Gly Ala  
 145                      150                      155                      160  
 Gly Asn Thr Gly Gly Leu Glu Pro Val His Pro Ala Ser Leu Pro Asp  
                     165                      170                      175  
 Phe Ser Leu Ala Thr Ser Ala Pro Leu Cys Cys Thr Leu Cys His Glu  
                     180                      185                      190  
 Arg Leu Glu Asp Asn His Phe Val Gln Cys Arg Pro Ser Phe Asp Lys  
                     195                      200                      205  
 Phe Ser Ser Leu Leu Arg Gln Arg  
                     210                      215

&lt;210&gt; 737

&lt;211&gt; 317

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 737

Arg Pro Thr Arg Pro Glu Val Met Met Thr Lys Tyr Ser Asn Leu Ser  
 1                      5                      10                      15  
 Leu Glu Ser His Asn Phe Ser Leu Thr Ala Ser Pro Leu Thr Ser Leu  
                     20                      25                      30  
 Pro Ile Pro Glu Val Met Met Thr Lys Tyr Ser Asn Leu Phe Leu Glu  
                     35                      40                      45  
 Ser His Asn Ile Ser Leu Thr Glu His Ser Ser Val Pro Val Glu Lys  
                     50                      55                      60

722

Asn	Ile	Thr	Leu	Glu	Arg	Pro	Ser	Ala	Val	Glu	Leu	Thr	Cys	Gln	Phe	65	70	75	80
Thr	Thr	Ser	Gly	Asp	Val	Asn	Ser	Val	Asn	Val	Thr	Trp	Lys	Lys	Gly	85	90	95	
Asp	Glu	Gln	Leu	Lys	Asn	Tyr	His	Val	Ser	Ala	Thr	Glu	Gly	Ile	Leu	100	105	110	
Tyr	Thr	Gln	Tyr	Lys	Phe	Ser	Ile	Ile	Asn	Ser	Glu	Gln	Leu	Gly	Ser	115	120	125	
Tyr	Ser	Cys	Phe	Phe	Glu	Glu	Glu	Lys	Glu	Arg	Arg	Gly	Thr	Phe	Asn	130	135	140	
Phe	Gly	Val	Pro	Glu	Val	Gln	Arg	Lys	Asn	Lys	Pro	Leu	Ile	Thr	Tyr	145	150	155	160
Val	Gly	Asp	Ser	Val	Val	Leu	Val	Cys	Lys	Cys	Arg	His	Cys	Ala	Pro	165	170	175	
Leu	Asn	Trp	Thr	Trp	Tyr	Ser	Gly	Asn	Arg	Ser	Val	Gln	Val	Pro	Leu	180	185	190	
Asp	Val	His	Met	Asn	Glu	Lys	Tyr	Ala	Ile	Asn	Gly	Thr	Asn	Ala	Asn	195	200	205	
Glu	Thr	Arg	Leu	Lys	Ile	Met	Gln	Leu	Ser	Glu	Asp	Asp	Lys	Gly	Ser	210	215	220	
Tyr	Trp	Cys	His	Ala	Met	Phe	Gln	Leu	Gly	Glu	Ser	Gln	Glu	Ser	Val	225	230	235	240
Glu	Leu	Val	Val	Ile	Ser	Tyr	Leu	Val	Pro	Leu	Lys	Pro	Phe	Leu	Gly	245	250	255	
Ile	Val	Val	Glu	Val	Ile	Leu	Leu	Val	Ala	Ile	Ile	Leu	Phe	Cys	Glu	260	265	270	
Met	His	Thr	Gln	Lys	Lys	Lys	Met	His	Met	Asp	Asp	Gly	Lys	Glu	Phe	275	280	285	
Glu	Gln	Val	Glu	Gln	Leu	Lys	Ser	Asp	Asp	Ser	Asn	Gly	Ile	Glu	Asn	290	295	300	
Asn	Ala	Pro	Arg	His	Arg	Lys	Asn	Glu	Ala	Met	Ser	Gln				305	310	315	

723

&lt;210&gt; 738

&lt;211&gt; 67

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 738

Ala Arg Val Ala Ser Asp Pro Phe Phe Arg His Tyr Arg Gln Leu Asn  
 1 5 10 15

Glu Lys Leu Val Gln Leu Ile Glu Asp Tyr Ser Leu Val Ser Phe Ile  
 20 25 30

Pro Leu Asn Ile Gln Asp Lys Glu Ser Ile Gln Arg Val Leu Gln Ala  
 35 40 45

Val Asp Lys Ala Asn Gly Tyr Cys Phe Gly Ala Gln Glu Gln Arg Thr  
 50 55 60

Trp Lys Pro  
 65

&lt;210&gt; 739

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 739

Ser Gln Gln Pro Arg Ile Met Ser Lys Leu Gly Arg Ala Ala Arg Gly  
 1 5 10 15

Leu Arg Lys Pro Glu Val Gly Gly Val Ile Arg Ala Ile Val Arg Ala  
 20 25 30

Gly Leu Ala Met Pro Gly Pro Pro Leu Gly Pro Val Leu Gly Gln Arg  
 35 40 45

Gly Val Ser Ile Asn Gln Phe Cys Lys Glu Phe Asn Glu Arg Thr Lys  
 50 55 60

Asp Ile Lys Glu Gly Ile Pro Leu Pro Thr Lys Ile Leu Val Lys Pro  
 65 70 75 80

Asp Arg Thr Phe Glu Ile Lys Ile Gly Gln Pro Thr Val Ser Tyr Phe  
 85 90 95

Leu Lys Ala Ala Ala Gly Ile Glu Lys Gly Ala Arg Gln Thr Gly Lys  
 100 105 110

Glu Val Ala Gly Leu Val Thr Leu Lys His Val Tyr Glu Ile Ala Arg

724

115                      120                      125  
 Ile Lys Ala Gln Asp Glu Ala Phe Ala Cys Arg Met Tyr Pro  
 130                      135                      140

<210> 740  
 <211> 485  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 740  
 Trp Pro Ala Val Ala Val Arg Phe Thr Ala Leu Xaa Leu Gly Phe Gly  
 1                      5                      10                      15  
 Asp Ala Val His Val Tyr Asp Gly Pro Gly Pro Pro Glu Ser Ser Arg  
 20                      25                      30  
 Leu Leu Arg Ser Leu Thr His Phe Ser Asn Gly Lys Ala Val Thr Val  
 35                      40                      45  
 Glu Thr Leu Ser Gly Gln Ala Val Val Ser Tyr His Thr Val Ala Trp  
 50                      55                      60  
 Ser Asn Gly Arg Gly Phe Asn Ala Thr Tyr His Val Arg Gly Tyr Cys  
 65                      70                      75                      80  
 Leu Pro Trp Asp Arg Pro Cys Gly Leu Gly Ser Gly Leu Gly Ala Gly  
 85                      90                      95  
 Glu Gly Leu Gly Glu Arg Cys Tyr Ser Glu Ala Gln Arg Cys Asp Gly  
 100                      105                      110  
 Ser Trp Asp Cys Ala Asp Gly Thr Asp Glu Glu Asp Cys Pro Gly Cys  
 115                      120                      125  
 Pro Pro Gly His Phe Pro Cys Gly Ala Ala Gly Thr Ser Gly Ala Thr  
 130                      135                      140  
 Ala Cys Tyr Leu Pro Ala Asp Arg Cys Asn Tyr Gln Thr Phe Cys Ala  
 145                      150                      155                      160  
 Asp Gly Ala Asp Glu Arg Arg Cys Arg His Cys Gln Pro Gly Asn Phe  
 165                      170                      175

725

Arg	Cys	Arg	Asp	Glu	Lys	Cys	Val	Tyr	Glu	Thr	Trp	Val	Cys	Asp	Gly	180	185	190	
Gln	Pro	Asp	Cys	Ala	Asp	Gly	Ser	Asp	Glu	Trp	Asp	Cys	Ser	Tyr	Val	195	200	205	
Leu	Pro	Arg	Lys	Val	Ile	Thr	Ala	Ala	Val	Ile	Gly	Ser	Leu	Val	Cys	210	215	220	
Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys	Leu	Tyr	Ala	225	230	235	240
Ile	Arg	Thr	Gln	Glu	Tyr	Ser	Ile	Phe	Ala	Pro	Leu	Ser	Arg	Met	Glu	245	250	255	
Ala	Glu	Ile	Val	Gln	Gln	Gln	Ala	Pro	Pro	Ser	Tyr	Gly	Gln	Leu	Ile	260	265	270	
Ala	Gln	Gly	Ala	Ile	Pro	Pro	Val	Glu	Asp	Phe	Pro	Thr	Glu	Asn	Pro	275	280	285	
Asn	Asp	Asn	Ser	Val	Leu	Gly	Asn	Leu	Arg	Ser	Leu	Leu	Gln	Ile	Leu	290	295	300	
Arg	Gln	Asp	Met	Thr	Pro	Gly	Gly	Gly	Pro	Gly	Ala	Arg	Arg	Arg	Gln	305	310	315	320
Arg	Gly	Arg	Leu	Met	Arg	Arg	Leu	Val	Arg	Arg	Leu	Arg	Arg	Trp	Gly	325	330	335	
Leu	Leu	Pro	Arg	Thr	Asn	Thr	Pro	Ala	Arg	Ala	Ser	Glu	Ala	Arg	Ser	340	345	350	
Gln	Val	Thr	Pro	Ser	Ala	Ala	Pro	Leu	Glu	Ala	Leu	Asp	Gly	Gly	Thr	355	360	365	
Gly	Pro	Ala	Arg	Glu	Gly	Gly	Ala	Val	Gly	Gly	Gln	Asp	Gly	Glu	Gln	370	375	380	
Ala	Pro	Pro	Leu	Pro	Ile	Lys	Ala	Pro	Leu	Pro	Ser	Ala	Ser	Thr	Ser	385	390	395	400
Pro	Ala	Pro	Thr	Thr	Val	Pro	Glu	Ala	Pro	Gly	Pro	Leu	Pro	Ser	Leu	405	410	415	
Pro	Leu	Glu	Pro	Ser	Leu	Leu	Ser	Gly	Val	Val	Gln	Ala	Leu	Arg	Gly	420	425	430	
Arg	Leu	Leu	Pro	Ser	Leu	Gly	Pro	Pro	Gly	Pro	Thr	Arg	Ser	Pro	Pro	435	440	445	

726

Gly Pro His Thr Ala Val Leu Ala Leu Glu Asp Glu Asp Asp Val Leu  
 450 455 460

Leu Val Pro Leu Ala Glu Pro Gly Val Trp Val Ala Glu Ala Glu Asp  
 465 470 475 480

Glu Pro Leu Leu Thr  
 485

<210> 741

<211> 313

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (36)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (276)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 741

Gly Gly Ala Arg Gly Xaa Xaa Arg Xaa Val Ala Ser Phe Gln Gln Gln  
 1 5 10 15

His Gly Ala Gln Arg Asp Leu Lys Leu Gly Ser Arg Leu Tyr Gly Pro  
 20 25 30

Ser Ser Val Xaa Phe Ala Glu Asp Phe Val Arg Ser Ser Lys Gln His  
 35 40 45

727

Tyr	Asn	Cys	Glu	His	Ser	Lys	Ile	Asn	Phe	Arg	Asp	Lys	Arg	Ser	Ala	50	55	60
Leu	Gln	Ser	Ile	Asn	Glu	Trp	Ala	Ala	Gln	Thr	Thr	Asp	Gly	Lys	Leu	65	70	75
Pro	Glu	Val	Thr	Lys	Asp	Val	Glu	Arg	Thr	Asp	Gly	Ala	Leu	Leu	Val	85	90	95
Asn	Ala	Met	Phe	Phe	Lys	Pro	His	Trp	Asp	Glu	Lys	Phe	His	His	Lys	100	105	110
Met	Val	Asp	Asn	Arg	Gly	Phe	Met	Val	Thr	Arg	Ser	Tyr	Thr	Val	Gly	115	120	125
Val	Thr	Met	Met	His	Arg	Thr	Gly	Leu	Tyr	Asn	Tyr	Tyr	Asp	Asp	Glu	130	135	140
Lys	Glu	Lys	Leu	Gln	Met	Val	Glu	Met	Pro	Leu	Ala	His	Lys	Leu	Ser	145	150	155
Ser	Leu	Leu	Ile	Leu	Met	Pro	His	His	Val	Glu	Pro	Leu	Glu	Arg	Leu	165	170	175
Glu	Lys	Leu	Leu	Thr	Lys	Glu	Gln	Leu	Lys	Ile	Trp	Met	Gly	Lys	Met	180	185	190
Gln	Lys	Lys	Ala	Val	Ala	Ile	Ser	Leu	Pro	Lys	Gly	Val	Val	Glu	Val	195	200	205
Thr	His	Asp	Leu	Gln	Lys	His	Leu	Ala	Gly	Leu	Gly	Leu	Thr	Glu	Ala	210	215	220
Ile	Asp	Lys	Asn	Lys	Ala	Asp	Leu	Ser	Arg	Met	Ser	Gly	Lys	Lys	Asp	225	230	235
Leu	Tyr	Leu	Ala	Ser	Val	Phe	His	Ala	Thr	Ala	Phe	Glu	Trp	Asp	Thr	245	250	255
Glu	Gly	Asn	Pro	Phe	Asp	Gln	Asp	Ile	Tyr	Gly	Arg	Glu	Glu	Leu	Arg	260	265	270
Ser	Pro	Lys	Xaa	Phe	Tyr	Ala	Asp	His	Pro	Phe	Ile	Phe	Leu	Val	Arg	275	280	285
Asp	Thr	Gln	Thr	Gly	Ser	Leu	Leu	Phe	Ile	Gly	Arg	Leu	Val	Arg	Pro	290	295	300
Lys	Gly	Asp	Lys	Met	Arg	Asp	Glu	Leu								305	310	

728

&lt;210&gt; 742

&lt;211&gt; 60

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 742

```

Arg Asn Ile Lys Trp Glu Lys Ala Tyr Lys Ala Phe Arg Ile Leu Ser
 1              5              10              15

Val Ser Ser Phe Leu Val Phe Arg Cys Tyr Val Ile Lys His Ile Phe
          20              25              30

Phe Gly Phe Pro Arg Tyr Thr Ile Tyr Leu Phe Lys Gly Lys Ser Ile
          35              40              45

Lys Cys Ile Tyr Phe Ile Leu Trp Phe Cys Tyr Leu
          50              55              60

```

&lt;210&gt; 743

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 743

```

Pro Arg Gly Xaa Ser Gln Val Cys Pro Cys Ser Trp Asn Pro Gly Val
 1              5              10              15

Pro Glu Ala Lys Ala Pro Pro Arg Gly Ser Arg Glu Asp Leu Val Ala
          20              25              30

Glu Glu Ser Pro Glu Leu Leu Asn Pro Glu Pro Arg Arg Leu Ser Pro
          35              40              45

Glu Leu Arg Leu Leu Pro Tyr Met Ile Thr Leu Gly Asp Ala Val His
          50              55              60

Asn Phe Ala Asp Gly Leu Ala Val Gly Ala Ala Phe Ala Ser Ser Trp
          65              70              75              80

Lys Thr Gly Leu Ala Thr Ser Leu Ala Val Phe Cys His Glu Leu Pro
          85              90              95

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729

His Glu Leu Gly Asp Phe Ala Ala Leu Leu His Ala Gly Leu Ser Val  
 100 105 110  
 Arg Gln Ala Leu Leu Leu Asn Leu Ala Ser Ala Leu Thr Ala Phe Ala  
 115 120 125  
 Gly Leu Tyr Val Ala Leu Ala Val Gly Val Ser Glu Glu Ser Glu Ala  
 130 135 140  
 Trp Ile Leu Ala Val Ala Thr Gly Leu Phe Leu Tyr Val Ala Leu Cys  
 145 150 155 160  
 Asp Met Leu Pro Ala Met Leu Lys Val Arg Asp Pro Arg Pro Trp Leu  
 165 170 175  
 Leu Phe Leu Leu His Asn Val Gly Leu Leu Gly Gly Trp Thr Val Leu  
 180 185 190  
 Leu Leu Leu Ser Leu Tyr Glu Asp Asp Ile Thr Phe  
 195 200

&lt;210&gt; 744

&lt;211&gt; 81

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (6)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 744

Ile Thr Lys Gly Lys Xaa Val Ala Cys Ser Thr Gly Pro Glu Phe Pro  
 1 5 10 15  
 Gly Arg Pro Thr Arg Pro Thr Thr Glu Gly Tyr Gly Cys Glu Lys Thr  
 20 25 30  
 Thr Glu Gly Tyr Gly Cys Glu Lys Thr Thr Glu Gly Tyr Gly Cys Glu  
 35 40 45  
 Lys Thr Thr Glu Gly Tyr Gly Cys Glu Lys Thr Thr Glu Gly Tyr Gly  
 50 55 60  
 Cys Glu Lys Thr Thr Glu Gly Thr Ala Ala Arg Arg Arg Gln Arg Val  
 65 70 75 80

Arg

730

&lt;210&gt; 745

&lt;211&gt; 751

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 745

```

Leu Pro Pro Leu Gly Ser Pro Gly Pro Ala Arg Ser Ala Gly Ser Cys
 1              5              10              15

Ser Val Leu Phe Ser Leu Ile Leu Gln Arg Gln Asp Pro Ala Pro Ala
      20              25              30

Leu Ser Thr Ala Thr Met Gly Lys Gly Val Gly Arg Asp Lys Tyr Glu
      35              40              45

Pro Ala Ala Val Ser Glu Gln Gly Asp Lys Lys Gly Lys Lys Gly Lys
      50              55              60

Lys Asp Arg Asp Met Asp Glu Leu Lys Lys Glu Val Ser Met Asp Asp
      65              70              75              80

His Lys Leu Ser Leu Asp Glu Leu His Arg Lys Tyr Gly Thr Asp Leu
      85              90              95

Ser Arg Gly Leu Thr Ser Ala Arg Ala Ala Glu Ile Leu Ala Arg Asp
      100              105              110

Gly Pro Asn Ala Leu Thr Pro Pro Pro Thr Thr Pro Glu Trp Ile Lys
      115              120              125

Phe Cys Arg Gln Leu Phe Gly Gly Phe Ser Met Leu Leu Trp Ile Gly
      130              135              140

Ala Ile Leu Cys Phe Leu Ala Tyr Ser Ile Gln Ala Ala Thr Glu Glu
      145              150              155              160

Glu Pro Gln Asn Asp Asn Leu Tyr Leu Gly Val Val Leu Ser Ala Val
      165              170              175

Val Ile Ile Thr Gly Cys Phe Ser Tyr Tyr Gln Glu Ala Lys Ser Ser
      180              185              190

Lys Ile Met Glu Ser Phe Lys Asn Met Val Pro Gln Gln Ala Leu Val
      195              200              205

Ile Arg Asn Gly Glu Lys Met Ser Ile Asn Ala Glu Glu Val Val Val
      210              215              220

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731

Gly	Asp	Leu	Val	Glu	Val	Lys	Gly	Gly	Asp	Arg	Ile	Pro	Ala	Asp	Leu	225	230	235	240
Arg	Ile	Ile	Ser	Ala	Asn	Gly	Cys	Lys	Val	Asp	Asn	Ser	Ser	Leu	Thr	245	250	255	
Gly	Glu	Ser	Glu	Pro	Gln	Thr	Arg	Ser	Pro	Asp	Phe	Thr	Asn	Glu	Asn	260	265	270	
Pro	Leu	Glu	Thr	Arg	Asn	Ile	Ala	Phe	Phe	Ser	Thr	Asn	Cys	Val	Glu	275	280	285	
Gly	Thr	Ala	Arg	Gly	Ile	Val	Val	Tyr	Thr	Gly	Asp	Arg	Thr	Val	Met	290	295	300	
Gly	Arg	Ile	Ala	Thr	Leu	Ala	Ser	Gly	Leu	Glu	Gly	Gly	Gln	Thr	Pro	305	310	315	320
Ile	Ala	Ala	Glu	Ile	Glu	His	Phe	Ile	His	Ile	Ile	Thr	Gly	Val	Ala	325	330	335	
Val	Phe	Leu	Gly	Val	Ser	Phe	Phe	Ile	Leu	Ser	Leu	Ile	Leu	Glu	Tyr	340	345	350	
Thr	Trp	Leu	Glu	Ala	Val	Ile	Phe	Leu	Ile	Gly	Ile	Ile	Val	Ala	Asn	355	360	365	
Val	Pro	Glu	Gly	Leu	Leu	Ala	Thr	Val	Thr	Val	Cys	Leu	Thr	Leu	Thr	370	375	380	
Ala	Lys	Arg	Met	Ala	Arg	Lys	Asn	Cys	Leu	Val	Lys	Asn	Leu	Glu	Ala	385	390	395	400
Val	Glu	Thr	Leu	Gly	Ser	Thr	Ser	Thr	Ile	Cys	Ser	Asp	Lys	Thr	Gly	405	410	415	
Thr	Leu	Thr	Gln	Asn	Arg	Met	Thr	Val	Ala	His	Met	Trp	Phe	Asp	Asn	420	425	430	
Gln	Ile	His	Glu	Ala	Asp	Thr	Thr	Glu	Asn	Gln	Ser	Gly	Val	Ser	Phe	435	440	445	
Asp	Lys	Thr	Ser	Ala	Thr	Trp	Leu	Ala	Leu	Ser	Arg	Ile	Ala	Gly	Leu	450	455	460	
Cys	Asn	Arg	Ala	Val	Phe	Gln	Ala	Asn	Gln	Glu	Asn	Leu	Pro	Ile	Leu	465	470	475	480
Lys	Arg	Ala	Val	Ala	Gly	Asp	Ala	Ser	Glu	Ser	Ala	Leu	Leu	Lys	Cys	485	490	495	

732

Ile Glu Leu Cys Cys Gly Ser Val Lys Glu Met Arg Glu Arg Tyr Ala  
 500 505 510

Lys Ile Val Glu Ile Pro Phe Asn Ser Thr Asn Lys Tyr Gln Leu Ser  
 515 520 525

Ile His Lys Asn Pro Asn Thr Ser Glu Pro Gln His Leu Leu Val Met  
 530 535 540

Lys Gly Ala Pro Glu Arg Ile Leu Asp Arg Cys Ser Ser Ile Leu Leu  
 545 550 555 560

His Gly Lys Glu Gln Pro Leu Asp Glu Glu Leu Lys Asp Ala Phe Gln  
 565 570 575

Asn Ala Tyr Leu Glu Leu Gly Gly Leu Gly Glu Arg Val Leu Gly Phe  
 580 585 590

Cys His Leu Phe Leu Pro Asp Glu Gln Phe Pro Glu Gly Phe Gln Phe  
 595 600 605

Asp Thr Asp Asp Val Asn Phe Pro Ile Asp Asn Leu Cys Phe Val Gly  
 610 615 620

Leu Ile Ser Met Ile Asp Pro Pro Arg Ala Ala Val Pro Asp Ala Val  
 625 630 635 640

Gly Lys Cys Arg Ser Ala Gly Ile Lys Val Ile Met Val Thr Gly Asp  
 645 650 655

His Pro Ile Thr Ala Lys Ala Ile Ala Lys Gly Val Gly Ile Ile Ser  
 660 665 670

Glu Gly Asn Glu Thr Val Glu Asp Ile Ala Ala Arg Leu Asn Ile Pro  
 675 680 685

Val Ser Gln Val Asn Pro Arg Asp Ala Lys Ala Cys Val Val His Gly  
 690 695 700

Ser Asp Leu Lys Asp Met Thr Ser Glu Gln Leu Asp Asp Ile Leu Lys  
 705 710 715 720

Tyr His Thr Glu Ile Val Phe Ala Lys Thr Ser Pro Gln Gln Lys Leu  
 725 730 735

Ile Ile Val Glu Arg Leu Pro Lys Thr Gly Cys Tyr Arg Gly Leu  
 740 745 750

&lt;210&gt; 746

733

<211> 25  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (8)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 746  
Ile Pro Ala Leu Trp Xaa Ala Xaa Val Gly Arg Ser Leu Glu Pro Arg  
1 5 10 15  
Ser Leu Arg Ser Ala Trp Ala Thr Trp  
20 25

<210> 747  
<211> 37  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 747  
Xaa Xaa Leu Gly Gly Arg Val Cys Ser Glu Pro Arg Trp Arg His Cys  
1 5 10 15  
Thr Pro Ala Trp Gly Thr Glu Arg Asp Ser Ile Ser Lys Lys Lys Lys  
20 25 30  
Lys Lys Ile Lys Asn  
35

<210> 748

734

<211> 71  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (2)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (42)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (46)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 748  
Asn Xaa Ala Leu Arg Asp Asp Val Ala Ala Gly Arg Arg Arg Leu His  
1 5 10 15  
Ile Lys Ala Val Cys Gln Ser Val Arg Glu Ala Thr Thr Ala Ser Gly  
20 25 30  
Gly Met Asn Ala Ala Ser Pro Arg Leu Xaa Arg His Arg Xaa Asn Gly  
35 40 45  
Xaa Tyr Phe Thr Leu Arg Glu Arg Leu Ile Thr Met Gln Lys Gln Leu  
50 55 60  
Gly Gly Asn Pro Glu Val Tyr  
65 70

<210> 749  
<211> 109  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (41)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (43)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (59)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (61)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (70)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (75)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (90)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (93)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids

736

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 749

Gly	Ile	Ser	Arg	Lys	Met	Lys	Ser	Ser	Leu	Pro	Gln	Gly	Val	Arg	Asn
1				5					10					15	

Val	Ala	Xaa	Val	Cys	Leu	Gln	Ile	Gly	Tyr	Pro	Thr	Val	Ala	Ser	Val
			20					25					30		

Pro	His	Ser	Ile	Ile	Asn	Gly	Tyr	Xaa	Arg	Xaa	Leu	Ala	Leu	Ser	Val
		35					40					45			

Glu	Thr	Asp	Tyr	Thr	Phe	Pro	Leu	Ala	Glu	Xaa	Val	Xaa	Ala	Ser	Trp
	50					55					60				

Leu	Ile	His	Leu	Pro	Xaa	Trp	Leu	Leu	Pro	Xaa	Trp	Leu	Leu	Pro	Pro
65					70					75					80

Gln	Leu	Leu	Leu	Leu	Leu	Leu	Xaa	Pro	Xaa	Leu	Ser	Xaa	Asn	Pro	Arg
				85					90					95	

Lys	Ser	Glu	Asp	Pro	Xaa	Lys	Xaa	Trp	Ile	Gly	Ser	Leu
			100					105				

&lt;210&gt; 750

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (16)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 750

Gly	Thr	Xaa	Gly	Pro	Ala	Ser	Gly	Val	Ala	Gly	Thr	Met	Gln	Arg	Xaa
1				5					10					15	

Ser	Leu	Pro	Phe	Ala	Ile	Leu	Thr	Leu	Val	Asn	Ala	Pro	Tyr	Lys	Arg
			20					25					30		



737

Gly Phe Tyr Cys Gly Asp Asp Ser Ile Arg Tyr Pro Tyr Arg Pro Asp  
35 40 45

Thr Ile Thr His Gly Leu Met Ala Gly Val Thr Ile Thr Ala Thr Val  
50 55 60

Ile Leu Val Ser Ala Gly Glu Ala Tyr Leu Val Tyr Thr Asp Arg Leu  
65 70 75 80

Tyr Ser Arg Ser Asp Phe Asn Asn Tyr Val Ala Ala Val Tyr Lys Val  
85 90 95

Leu Gly Thr Ser Cys Leu Gly Leu Pro  
100 105

&lt;210&gt; 751

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (8)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (45)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (53)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

738

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (59)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (60)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 751

Xaa	Ser	Arg	Lys	Pro	Arg	Xaa	Xaa	Val	Thr	Asp	Tyr	Ile	Lys	Val	Tyr
1				5					10					15	

Tyr	Thr	Leu	Arg	Lys	Gln	Met	Asn	Xaa	Asn	Leu	Phe	Ser	Ser	Phe	Ile
			20					25					30		

Thr	Pro	Thr	Ile	Ile	Gly	Leu	Pro	Ile	Val	Ile	Ile	Xaa	Thr	Met	Phe
			35				40					45			

Pro	Ser	Ile	Asp	Xaa	Pro	Ile	Thr	Tyr	Pro	Xaa	Xaa	Gln
	50					55					60	

&lt;210&gt; 752

&lt;211&gt; 58

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (33)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 752

Ser	Asp	Pro	Glu	Ala	Glu	Val	Glu	Glu	Ser	Ser	Ser	Gly	Leu	Arg	Leu
1				5					10					15	

Ser	Leu	Ile	Lys	Met	Thr	Thr	Ser	Gln	Lys	His	Arg	Asp	Phe	Val	Ala
			20					25					30		

Xaa	Pro	Met	Gly	Glu	Asn	Gln	Trp	Gly	Thr	Trp	Leu	Gly	Leu	Val	Xaa
			35				40					45			

739

Ser Trp Ala Arg Asn Trp Lys Lys Gly Phe  
 50 55

<210> 753  
 <211> 73  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (48)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (51)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (52)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (53)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (71)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 753  
 Thr Leu His Ser Lys Gly Asn Lys Ser Trp Ser Ser Thr Ala Val Thr  
 1 5 10 15

Ala Ala Leu Glu Leu Val Gly Gly Pro Val Pro Asn Ser Pro Tyr Ser  
 20 25 30

Glu Ser Tyr Tyr Asn Ser Leu Ala Val Val Leu Gln Arg Arg Asp Xaa  
 35 40 45

Glu Asn Xaa Xaa Xaa Phe Arg Leu Val Cys Cys Val Glu Leu Xaa Ala

740

50

55

60

Asp Asn Asn Ser His Arg Xaa Gln Leu  
65 70

&lt;210&gt; 754

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (62)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (67)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (68)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (81)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (87)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (91)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (92)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (101)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (105)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (107)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (109)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (112)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (115)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 754  
Met Gly Ser Asp Tyr Ile Arg Glu Val Asn Val Val Lys Ser Ala Arg  
1 5 10 15  
Xaa Gly Tyr Ser Lys Met Leu Leu Gly Val Tyr Ala Tyr Phe Ile Glu

742

20 25 30

His Lys Gln Arg Asn Thr Leu Ile Trp Leu Xaa Thr Asp Gly Asp Ala  
35 40 45

Arg Glu Leu Tyr Glu Lys Pro Thr Leu Ser Pro Thr Ile Xaa Asp Ile  
50 55 60

Pro Ser Xaa Xaa Gly Ala Gly Pro Val Val Trp Gln Lys Ser Thr Gly  
65 70 75 80

Xaa Asn Lys Xaa Asn His Xaa Xaa Val Ser Xaa Xaa Trp Gly Gly Pro  
85 90 95

Arg Asn Pro Ile Xaa Pro Ile Ser Xaa Trp Xaa Phe Xaa Asn Ser Xaa  
100 105 110

Gly Pro Xaa Phe  
115

&lt;210&gt; 755

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (137)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (138)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

743

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (146)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 755

Ile	Arg	Gln	Xaa	Ile	Asp	Ile	Arg	Lys	Asp	Leu	Tyr	Ala	Asn	Asn	Val
1				5					10					15	

Leu	Ser	Gly	Gly	Thr	Thr	Met	Tyr	Pro	Gly	Ile	Ala	Asp	Arg	Met	Gln
			20					25					30		

Lys	Glu	Ile	Thr	Ala	Leu	Ala	Pro	Ser	Thr	Met	Lys	Ile	Lys	Ile	Ile
		35					40					45			

Ala	Pro	Pro	Glu	Ala	Gln	Ile	Leu	Cys	Leu	Asp	Arg	Trp	Leu	His	Pro
	50					55					60				

Gly	Leu	Ser	Val	His	Leu	Pro	Ala	Asp	Val	Asp	Gln	Gln	Thr	Gly	Asn
65					70					75					80

Thr	Val	Lys	Pro	Gly	Leu	Pro	Leu	Ser	Thr	Ala	Asn	Ala	Phe	Leu	Lys
				85					90					95	

His	Phe	Ser	Trp	Phe	Leu	Phe	Cys	Leu	Leu	Gly	Thr	Gln	Leu	Trp	Asn
			100					105					110		

Val	Pro	Val	Gly	Ile	Tyr	Gly	Xaa	Phe	Ser	Phe	Phe	Phe	Gln	Ile	Ile
		115					120					125			

Pro	Arg	Ala	Lys	Val	Leu	Xaa	Trp	Xaa	Xaa	His	Gly	Val	Phe	Leu	Asn
	130					135					140				

Lys	Xaa	Trp	Lys
145			

&lt;210&gt; 756

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (147)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 756

Ala	Glu	Leu	Ala	Thr	Thr	Ser	Thr	Met	Pro	Tyr	Gln	Tyr	Pro	Ala	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

744

1	5	10	15												
Thr	Pro	Glu	Gln	Lys	Lys	Glu	Leu	Ser	Asp	Ile	Ala	His	Arg	Ile	Val
			20					25					30		
Ala	Pro	Gly	Lys	Gly	Ile	Leu	Ala	Ala	Asp	Glu	Ser	Thr	Gly	Ser	Ile
		35					40					45			
Ala	Lys	Arg	Leu	Gln	Ser	Ile	Gly	Thr	Glu	Asn	Thr	Glu	Glu	Asn	Arg
	50					55					60				
Arg	Phe	Tyr	Arg	Gln	Leu	Leu	Leu	Thr	Ala	Asp	Asp	Arg	Val	Asn	Pro
65					70					75					80
Cys	Ile	Gly	Gly	Val	Ile	Leu	Phe	His	Glu	Thr	Leu	Tyr	Gln	Lys	Ala
				85					90					95	
Asp	Asp	Gly	Arg	Pro	Phe	Pro	Gln	Val	Ile	Lys	Ser	Lys	Gly	Gly	Val
			100					105					110		
Val	Gly	Ile	Lys	Val	Asp	Lys	Gly	Val	Val	Pro	Leu	Ala	Gly	Thr	Asn
		115					120					125			
Gly	Glu	Thr	Thr	Thr	Gln	Gly	Leu	Asp	Gly	Leu	Ser	Glu	Arg	Cys	Ala
	130					135					140				
Gln	Tyr	Xaa	Glu	Gly	Arg	Ser									
145					150										

&lt;210&gt; 757

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids



745

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 757

Phe Val Thr Ile Leu Ser Ile Ile Ile Thr Leu Phe Phe Ile Phe Gln  
1 5 10 15

Leu Lys Val Ser Xaa Tyr Ser Phe Pro Glu Asn Pro Glu Pro Lys Ser  
20 25 30

Leu Thr Thr Ser Lys Ser Thr Thr Pro Trp Arg Xaa Gln Met Asn Xaa  
35 40 45

Asn Leu Phe Ser Ser Phe Ile Thr Pro Thr Ile Ile Gly Leu Pro Ile  
50 55 60

Val Ile Ile Ile Thr Met Phe Pro Ser Ile Ile Phe Pro Ser Pro Thr  
65 70 75 80

Arg Leu Ile Asn Asn Arg Leu Ile Ser Ile Xaa Thr Met Asp  
85 90

&lt;210&gt; 758

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (11)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (30)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

746

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (51)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (99)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (115)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 758  
 Arg Xaa Ala Leu Xaa Arg Leu Thr Ile Gly Xaa Ser Trp Tyr Ala Cys  
 1 5 10 15  
 Arg Tyr Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Xaa Arg Arg  
 20 25 30  
 Gly Gln Leu Arg Ala Arg Gly Gly Gly Ala Xaa Pro Arg Gly Ala Met  
 35 40 45  
 Xaa Asp Xaa Arg Ala Gly Ser Pro Arg Xaa Gly Pro Ala Ala Arg Asp  
 50 55 60  
 Val Ala Ala Met Ala Ser Pro Gln Leu Cys Arg Ala Leu Val Ser Ala  
 65 70 75 80

747

Gln Trp Val Ala Glu Ala Leu Arg Ala Pro Arg Ala Gly Ala Ala Ser  
                     85                    90                    95

Ala Ala Xaa Arg Thr Pro Pro Gly Xaa Leu Ala Gly Ser Trp Gly Ala  
                     100                    105                    110

Arg Thr Xaa  
                     115

<210> 759  
 <211> 44  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (17)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (42)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 759  
 Ile Ala Xaa Gly Arg Ser Arg Gly Ser Lys Leu Thr Trp Thr Cys Met  
       1                    5                    10                    15

Xaa Arg His Ser Ser Ser Ile Val Ser Pro Lys Phe Asn Ser Leu Ala  
                     20                    25                    30

Val Val Leu Gln Arg Arg Asp Trp Glu Xaa Xaa Lys  
                     35                    40

<210> 760  
 <211> 94  
 <212> PRT

748

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (80)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (91)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 760

Asn	Asp	Leu	Val	Glu	Tyr	Ser	Pro	Val	Thr	Glu	Lys	His	Leu	Thr	Asp
1				5					10					15	

Gly	Met	Thr	Val	Arg	Glu	Leu	Cys	Ser	Ala	Ala	Ile	Thr	Met	Ser	Asp
			20				25						30		

Asn	Thr	Ala	Ala	Asn	Leu	Leu	Leu	Thr	Thr	Ile	Gly	Gly	Pro	Lys	Glu
		35				40						45			

Leu	Thr	Ala	Phe	Leu	His	Asn	Met	Gly	Asp	His	Val	Thr	Arg	Leu	Asp
	50					55					60				

Arg	Trp	Glu	Pro	Glu	Leu	Asn	Glu	Ala	Ile	Pro	Asn	Asp	Glu	Arg	Xaa
65					70					75					80

Thr	Thr	Met	Pro	Val	Ala	Met	Ala	Thr	Thr	Xaa	Ala	Asn	Tyr
				85					90				

&lt;210&gt; 761

&lt;211&gt; 38

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (9)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

749

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 761

Leu Gln Glu Ile Asn Arg Val Tyr Xaa Glu Met Tyr Lys Thr Asp Leu  
 1 5 10 15

Glu Lys Asp Ile Xaa Ser Asp Xaa Ser Gly Asp Phe Arg Lys Leu Met  
 20 25 30

Val Ala Leu Ala Lys Gly  
 35

&lt;210&gt; 762

&lt;211&gt; 192

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 762

Cys Lys Xaa Xaa Leu Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro  
 1 5 10 15

Pro Arg Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu  
 20 25 30

Phe Gly Thr Ser Cys Val Gly Leu Arg Glu Ala Val Arg Ala Gly Ala  
 35 40 45

Val Gly Arg Gly Ala Glu Ala Leu Ala Arg Gly Met Ala His Cys Val  
 50 55 60

Thr Leu Val Gln Leu Ser Ile Ser Cys Asp His Leu Ile Asp Lys Asp  
 65 70 75 80

Ile Gly Ser Lys Ser Asp Pro Leu Cys Val Leu Leu Gln Asp Val Gly  
 85 90 95

Gly Gly Ser Trp Ala Glu Leu Gly Arg Thr Glu Arg Val Arg Asn Cys  
 100 105 110

750

Ser Ser Pro Glu Phe Ser Lys Thr Leu Gln Leu Glu Tyr Arg Phe Glu  
 115 120 125

Thr Val Gln Lys Leu Arg Phe Gly Ile Tyr Asp Ile Asp Asn Lys Thr  
 130 135 140

Pro Glu Leu Arg Asp Asp Asp Phe Leu Gly Gly Ala Glu Cys Ser Leu  
 145 150 155 160

Gly Gln Ile Val Ser Ser Gln Val Leu Thr Leu Pro Leu Met Leu Lys  
 165 170 175

Leu Glu Asn Leu Leu Gly Gly Gly Pro Ser Arg Ser Gln Leu Arg Asn  
 180 185 190

&lt;210&gt; 763

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (96)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 763

Ser Phe Tyr Ser Ile Pro Glu Phe Asp Glu Trp Lys Lys His Ile Glu  
 1 5 10 15

Asn Gln Lys Ala Trp Lys Ile Lys Tyr Tyr Lys Gly Leu Gly Thr Ser  
 20 25 30

Thr Ala Lys Glu Ala Lys Glu Tyr Phe Ala Asp Met Glu Arg His Arg  
 35 40 45

Ile Leu Phe Arg Tyr Ala Gly Pro Glu Asp Asp Ala Ala Ile Thr Leu  
 50 55 60

Ala Phe Ser Lys Lys Lys Ile Asp Asp Arg Lys Glu Trp Leu Thr Asn  
 65 70 75 80

Phe Met Glu Asp Arg Arg Gln Arg Ser Tyr Met Ala Tyr Gln Arg Xaa  
 85 90 95

Asp Ser Leu Ser Thr Gln Thr  
 100

751

<210> 764  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (101)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 764  
 Val Phe Ser Pro Thr Gly Ser Asp Gly Pro Leu Ala Thr Ser Lys Pro  
     1                    5                    10                    15  
 Val Pro Ala Glu Lys Ser Gly Leu Pro Val Gly Pro Glu Asn Gly Val  
                     20                    25                    30  
 Glu Leu Ser Lys Glu Glu Leu Ile Arg Arg Lys Arg Glu Glu Phe Ile  
             35                    40                    45  
 Gln Lys His Gly Arg Gly Met Glu Lys Ser Asn Lys Ser Thr Lys Ser  
             50                    55                    60  
 Asp Ala Pro Lys Glu Lys Gly Lys Lys Ala Pro Arg Val Trp Glu Leu  
             65                    70                    75                    80  
 Gly Gly Cys Ala Asn Lys Glu Met Leu Asp Tyr Ser Thr Ser Thr Thr  
                     85                    90                    95  
 Asn Gly Thr Pro Xaa Ala Cys Leu Val  
             100                    105

<210> 765  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 765  
 Gly Arg Glu Thr Met Phe Arg Ala Ala Ala Pro Gly Gln Leu Arg Arg  
     1                    5                    10                    15  
 Ala Ala Ser Leu Leu Arg Phe Gln Ser Thr Leu Val Ile Ala Glu His  
             20                    25                    30  
 Ala Asn Asp Ser Leu Ala Pro Ile Thr Leu Asn Thr Ile Thr Ala Ala  
             35                    40                    45

752

Thr Arg Leu Gly Gly Glu Val Ser Cys Leu Val Ala Gly Thr Lys Cys  
 50 55 60  
 Asp Lys Val Ala Gln Asp Leu Cys Lys Val Ala Gly Ile Ala Lys Val  
 65 70 75 80  
 Leu Val Ala Gln His Asp Val Tyr Lys Gly Leu Leu Pro Glu Glu Leu  
 85 90 95  
 Thr Pro Leu Ile Leu Ala Thr Gln Lys Gln Phe Asn Tyr Thr His Ile  
 100 105 110  
 Cys Ala Gly Ala Ser Ala Phe Gly Lys Asn Leu Leu Pro Arg Val Ala  
 115 120 125  
 Ala Lys Leu Glu Val Ala Pro Ile Ser Asp Ile Ile Ala Ile Lys Ser  
 130 135 140  
 Pro Asp Thr  
 145

&lt;210&gt; 766

&lt;211&gt; 36

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 766

Gly Arg Glu Ala Glu Ala Xaa Gln Leu Glu Ser Ser Lys Arg Phe Ala  
 1 5 10 15  
 Lys Xaa Phe Met Asp Arg His Gly Ile Pro Thr Ala Gln Trp Glu Gly  
 20 25 30  
 Phe His Gln Thr  
 35



753

<210> 767  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (80)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (98)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (100)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 767  
 Arg Phe Ala Leu Ser Thr Lys Ile Pro Asp Thr Lys Gly Cys Leu Gln  
     1                    5                    10                    15  
 Cys Arg Val Val Arg Asn Pro Tyr Thr Gly Ala Thr Phe Leu Leu Ala  
                     20                    25                    30  
 Ala Leu Pro Thr Ser Leu Leu Leu Leu Gln Trp Tyr Glu Pro Leu Gln  
                     35                    40                    45  
 Lys Phe Leu Leu Leu Lys Asn Phe Ser Ser Pro Leu Pro Xaa Pro Ala  
                     50                    55                    60  
 Gly Met Leu Xaa Pro Leu Val Leu Asp Gly Lys Glu Leu Pro Gln Xaa  
     65                    70                    75                    80

754

Phe Phe Gly Ala Glu Gly Pro Lys Gly Pro Gly Cys Arg Phe Leu Phe  
                             85                            90                            95

Gln Xaa Leu Xaa Leu Gly Gly Trp Xaa  
                             100                            105

&lt;210&gt; 768

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 768

Val Thr Leu Thr Gln Cys Ser Glu Lys Leu Val Gln Leu Ile Leu His  
       1                            5                            10                            15

Glu Tyr Lys Ile Phe Asn Ala Glu Val Leu Phe Arg Glu Asp Cys Ser  
                             20                            25                            30

Pro Asp Glu Phe Ile Asp Val Ile Val Gly Asn Arg Val Tyr Met Pro  
                             35                            40                            45

Cys Leu Tyr Val Tyr Asn Lys Ile Asp Gln Ile Ser Met Glu Glu Val  
                             50                            55                            60

Asp Arg Leu Ala Arg Lys Pro Asn Ser Val Val Ile Ser Cys Gly Met  
       65                            70                            75                            80

Lys Leu Asn Leu Asp Tyr Leu Leu Glu Met Leu Trp Glu Tyr Leu Ala  
                             85                            90                            95

Leu Thr Cys Ile Tyr Thr Lys Lys Arg Gly Gln Arg Pro Asp Phe Thr  
                             100                            105                            110

Asp Ala Ile Ile Leu Arg Lys Gly Ala Ser Val Glu His Val Gly Thr  
                             115                            120                            125

Ser Thr Lys Tyr Ser Pro Gln Arg Val Gly Leu Thr His Thr Met Glu  
                             130                            135                            140

His Glu Asp Val Ile Gln Ile Val Lys Lys  
       145                            150

&lt;210&gt; 769

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

755

<220>  
 <221> SITE  
 <222> (56)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (84)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 769  
 Asn Gln Ala Gly Leu Thr Ala Asp Arg Met Leu Val Leu Ser Arg Ala  
 1 5 10 15  
 Gly Gln Ala Ala Gly Leu Thr Phe Asn Gln Thr Ser Glu Ser Leu Ser  
 20 25 30  
 Ala Leu Val Lys Ala Gly Val Ser Gly Glu Ala Gln Ile Ala Ser Ile  
 35 40 45  
 Ser Gln Ser Val Ala Arg Phe Xaa Ser Ala Ser Gly Val Glu Val Asp  
 50 55 60  
 Lys Val Val Glu Ala Phe Glu Gly Gly Pro Tyr Pro Phe Ala Tyr Ser  
 65 70 75 80  
 Lys Arg Ile Xaa Ile Ile Ala Val Phe  
 85

<210> 770  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (57)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (83)  
 <223> Xaa equals any of the naturally occurring L-amino acids

756

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (84)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 770

Gln	Thr	Ser	Arg	Ala	Glu	Ser	Ala	Ser	Met	Thr	Glu	Arg	Arg	Val	Pro
1				5					10					15	

Phe	Ser	Leu	Leu	Arg	Gly	Pro	Ser	Trp	Asp	Pro	Phe	Arg	Asp	Trp	Tyr
			20					25					30		

Pro	His	Ser	Arg	Leu	Phe	Asp	Gln	Ala	Phe	Gly	Leu	Pro	Arg	Leu	Pro
		35					40					45			

Glu	Glu	Trp	Ser	Gln	Trp	Leu	Gly	Xaa	Ser	Ser	Trp	Pro	Gly	Tyr	Val
	50					55					60				

Arg	Pro	Leu	Pro	Pro	Ala	Ala	Ser	Arg	Ala	Pro	Gln	Trp	Pro	Xaa	Pro
65					70					75					80

Leu	Gln	Xaa	Xaa	Ala
				85

&lt;210&gt; 771

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (50)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (70)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 771

Asp	Tyr	Cys	Gln	Val	Val	Arg	Pro	Ser	Pro	Ser	Gly	Glu	Thr	Ile	Thr
1				5					10					15	

Tyr	Arg	Gln	Val	Val	Leu	Ser	Val	Asn	Val	Lys	Ser	Pro	Ala	Leu	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

757

			20					25					30			
Leu	Ser	Gln	Leu	Leu	Pro	Tyr	Met	Glu	Asn	Lys	Lys	Gly	Ala	Val	Xaa	
		35					40					45				
Leu	Xaa	Ser	Ser	Ile	Ala	Ala	Tyr	Asn	Pro	Val	Val	Ala	Leu	Gly	Val	
	50					55					60					
Tyr	Asn	Val	Ser	Lys	Xaa	Glu	Leu	Leu	Gly	Ser	His					
65					70					75						

<210> 772

<211> 105

<212> PRT

<213> Homo sapiens

$\langle 220 \rangle$

<221> SITE

<222> (12)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 772

Gly	Ala	Glu	Glu	Gly	Arg	Gln	Glu	Ala	Gln	Gly	Xaa	Arg	Lys	Glu	Ser
1				5					10					15	
Tyr	Ser	Val	Tyr	Val	Tyr	Lys	Val	Leu	Lys	Gln	Val	His	Pro	Asp	Thr
			20					25					30		
Gly	Ile	Ser	Ser	Lys	Ala	Met	Gly	Ile	Met	Asn	Ser	Phe	Val	Asn	Asp
		35					40					45			
Ile	Phe	Glu	Arg	Ile	Ala	Gly	Glu	Ala	Ser	Arg	Leu	Ala	His	Tyr	Asn
	50					55					60				
Lys	Arg	Ser	Thr	Ile	Thr	Ser	Arg	Glu	Ile	Gln	Thr	Ala	Val	Arg	Leu
65					70					75					80
Leu	Leu	Pro	Gly	Glu	Leu	Ala	Lys	His	Ala	Val	Ser	Glu	Gly	Thr	Lys
				85					90					95	
Ala	Val	Thr	Lys	Tyr	Thr	Ser	Ala	Lys							
			100					105							

<210> 773

<211> 144

<212> PRT

<213> Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (132)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (139)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (140)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (141)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 773

Phe	Ala	His	Leu	Pro	Lys	Ser	Thr	Phe	Val	Leu	Asp	Glu	Phe	Lys	Arg
1				5					10					15	

Lys	Tyr	Ser	Asn	Glu	Asp	Thr	Leu	Ser	Val	Ala	Leu	Pro	Tyr	Phe	Trp
			20					25					30		

Glu	His	Phe	Asp	Lys	Asp	Gly	Trp	Ser	Leu	Trp	Tyr	Ser	Glu	Tyr	Arg
		35					40					45			

Phe	Pro	Glu	Glu	Leu	Thr	Gln	Thr	Phe	Met	Ser	Cys	Asn	Leu	Ile	Thr
	50					55					60				

Gly	Met	Phe	Gln	Arg	Leu	Asp	Lys	Leu	Arg	Lys	Asn	Ala	Phe	Ala	Ser
65					70					75				80	

Val	Ile	Leu	Phe	Gly	Thr	Asn	Asn	Ser	Ser	Ser	Ile	Ser	Gly	Val	Trp
				85					90					95	

Val	Xaa	Pro	Gly	Gln	Glu	Leu	Ala	Phe	Pro	Leu	Ser	Pro	Asp	Trp	Gln
		100					105						110		

Val	Asp	Tyr	Glu	Val	Ile	His	Met	Ala	Glu	Thr	Gly	Ser	Gly	Lys	Arg
	115						120					125			

759

Gly Asp Pro Xaa Ala Gly Ser Arg Val Leu Xaa Xaa Xaa Arg Gly Pro  
 130 135 140

&lt;210&gt; 774

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 774

Ile Arg His Glu Arg Glu Xaa Glu Gln Gly Val Tyr Thr Cys Thr Ala  
 1 5 10 15

Gln Gly Ile Trp Lys Asn Glu Gln Lys Gly Glu Lys Ile Pro Arg Cys  
 20 25 30

Leu Pro Val Cys Gly Lys Pro Val Asn Pro Val Glu Gln Arg Gln Arg  
 35 40 45

Ile Ile Gly Gly Gln Lys Ala Xaa Gly Ile Val Gly Ala Phe Leu Gln  
 50 55 60

&lt;210&gt; 775

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 775

Asn Ile Ser Asn Ser Gln Val Asn Arg Leu Arg His Phe Val Arg Ala  
 1 5 10 15

Gly Leu Arg Ser Leu Phe Arg Pro Glu Pro Gln Thr Ala Val Glu Trp

760

	20		25		30										
Ala	Asp	Ala	Asn	Tyr	Tyr	Leu	Pro	Lys	Glu	Ser	Ala	Tyr	Gln	Glu	Gly
	35					40						45			
Arg	Trp	Glu	Thr	Leu	Pro	Phe	Gln	Arg	Ala	Ile	Met	Asn	Ala	Asn	Gly
	50					55					60				
Gln	Arg	Leu	His	Pro											
65															

&lt;210&gt; 776

&lt;211&gt; 56

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (5)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (15)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (54)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (55)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 776

Glu	Arg	Val	Phe	Xaa	Pro	His	Gly	Leu	Ile	Met	Asp	Arg	Thr	Xaa	Arg
1				5					10					15	

Phe	Ala	Arg	Asn	Val	Met	Lys	Glu	Met	Gly	Gly	His	His	Ile	Xaa	Val
			20					25					30		

Leu	Phe	Leu	Leu	Lys	Gly	Gly	Tyr	Lys	Phe	Phe	Ala	Asp	Leu	Leu	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----



761

35	40	45
Tyr Ile Lys Gly Leu Xaa Xaa Lys		
50	55	

<210> 777  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (5)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (6)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 777  
 Leu Gln Phe Xaa Xaa Xaa Met Ile Thr Pro Ser Ser Asn Thr Thr His  
 1 5 10 15  
 Tyr Arg Glu Ser Trp Tyr Ala Cys Arg Tyr Arg Ser Gly Ile Pro Gly  
 20 25 30  
 Ser Thr His Ala Ser Gly Val Phe Glu Val His Lys Lys Asn Val Arg  
 35 40 45  
 Gly Glu Phe Thr Tyr Tyr Glu Ile Gln Asp Asn Thr Gly Lys Met Glu  
 50 55 60  
 Val Val Val His Gly Arg Leu Thr Thr Ile Asn Cys Glu Glu Gly Asp  
 65 70 75 80  
 Lys Leu Lys Leu Thr Cys Phe Glu Leu Ala Pro Lys Ser Gly Asn Thr  
 85 90 95  
 Gly Glu Leu Arg Ser Val Ile His Ser His Ile Lys Val Ile Lys Thr  
 100 105 110  
 Arg Lys Asn Lys Lys Asp Ile Leu Asn Pro Asp Ser Ser Met Glu Thr  
 115 120 125

762

Ser Pro Asp Phe Phe Phe  
130

<210> 778  
<211> 133  
<212> PRT  
<213> Homo sapiens

<400> 778  
Thr Ile Thr Ser Gly Gly Asn Pro Pro Ala Phe Ser Leu Thr Pro Asp  
1 5 10 15  
Gly Lys Leu Thr Ala Lys Asn Ala Asp Ile Ser Gly Ser Val Asn Ala  
20 25 30  
Asn Ser Gly Thr Leu Ser Asn Val Thr Ile Ala Glu Asn Cys Thr Ile  
35 40 45  
Asn Gly Thr Leu Arg Ala Glu Lys Ile Val Gly Asp Ile Val Lys Ala  
50 55 60  
Ala Ser Ala Ala Phe Pro Arg Gln Val Glu Ser Ser Val Asp Trp Pro  
65 70 75 80  
Ser Gly Thr Arg Thr Val Thr Val Thr Asp Asp His Pro Phe Asp Arg  
85 90 95  
Gln Ile Val Val Leu Pro Leu Thr Phe Arg Gly Ser Lys Arg Thr Val  
100 105 110  
Ser Gly Arg Thr Thr Tyr Ser Met Cys Tyr Leu Lys Val Leu Met Asn  
115 120 125  
Gly Ala Val Ile Tyr  
130

<210> 779  
<211> 90  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (52)  
<223> Xaa equals any of the naturally occurring L-amino acids

763

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (63)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 779

Pro	Asn	Thr	Ala	Leu	Val	Gly	Val	Gln	Val	Asp	Ser	Glu	Gln	Phe	Gly
1				5				10					15		

Ser	Gln	Gln	Val	Ser	Arg	Asn	Tyr	His	Leu	Arg	Gly	Arg	Ile	Leu	Gln
	20					25						30			

Val	Pro	Ser	Asn	Tyr	Asn	Pro	Gln	Thr	Arg	Gln	Tyr	Ser	Gly	Ile	Trp
	35					40					45				

Asp	Gly	Thr	Xaa	Lys	Pro	Ala	Tyr	Ser	Asn	Asn	Met	Ala	Trp	Xaa	Leu
	50					55					60				

Trp	Asp	Met	Leu	Thr	His	Pro	Arg	Tyr	Gly	Met	Gly	Lys	Arg	Leu	Gly
65					70					75					80

Ala	Ala	Asp	Val	Asp	Lys	Trp	Ala	Leu	Tyr
			85					90	

&lt;210&gt; 780

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

764

<220>  
 <221> SITE  
 <222> (54)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (73)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 780  
 Val Xaa Arg Ala Ser Asp Asp Ala Glu Gly Tyr Leu Asp Xaa Phe Lys  
 1 5 10 15  
 Gly Lys Ile Thr Glu Ser His Leu Xaa Lys Glu Leu Leu Glu Lys Val  
 20 25 30  
 Glu Leu Thr Glu Asp Asn Ala Ser Arg Leu Glu Glu Phe Ser Lys Xaa  
 35 40 45  
 Trp Lys Asp Ala Ser Xaa Lys Trp Asn Ala Met Trp Ala Xaa Lys Ile  
 50 55 60  
 Xaa Gln Thr Lys Asp Xaa Lys Arg Xaa Leu Phe Cys Tyr Leu Val Val  
 65 70 75 80  
 Arg Ser

<210> 781  
 <211> 49  
 <212> PRT  
 <213> Homo sapiens

765

<220>  
 <221> SITE  
 <222> (43)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (48)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 781  
 Pro Asp Phe His Arg Glu Asp Asp Trp Trp Arg Asn Gly Gln Asn Leu  
 1 5 10 15  
 Tyr Leu Asp Asn Leu Glu Ala Thr Gly Leu Tyr Gln Val Pro Leu Ser  
 20 25 30  
 Ala Ala Gln Pro Gly Asp Val Leu Leu Cys Xaa Phe Gly Ser Ser Xaa  
 35 40 45  
 Xaa

<210> 782  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (31)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 782  
 Xaa Lys Glu Asn Gly Thr Val Thr Ala Ala Asn Ala Ser Thr Leu Asn  
 1 5 10 15  
 Asp Gly Ala Ala Ala Leu Val Leu Met Thr Ala Asp Ala Ala Xaa Arg  
 20 25 30

766

Leu Asn Val Thr Pro Leu Ala Arg Ile Val Ala Phe Ala Asp Ala Ala  
35 40 45

Val Glu Pro Ile Asp Phe Pro Ile Ala Pro Val Tyr Ala Ala Ser Met  
50 55 60

Val Leu Lys Asp Val Gly Leu Lys Lys Glu Asp Ile Ala Met Trp Glu  
65 70 75 80

Val Asn Gly Ser Leu  
85

<210> 783

<211> 90

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (14)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE  
 <222> (44)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (63)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (81)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (87)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 783  
 Gly Lys Ser Pro Ala Ser Trp Trp Gly Ser Ala Gly His Xaa Xaa Xaa  
   1                  5                  10                  15  
 Pro Cys Arg Gly Ala Cys Ala Ala Ala Gly Xaa Thr Ala Xaa Arg Gly  
                   20                  25                  30  
 Phe Ala Val Ser Ala Arg Xaa Val Trp Gln Thr Xaa Asp Arg Pro Gly  
                   35                  40                  45  
 Thr Trp Asp Gln Ser Arg Asn Leu Leu Leu Asn Gly Lys Ser Xaa Pro  
   50                  55                  60  
 Thr Lys Val Arg Leu Ile Trp Gly Gly Ser Leu Pro Pro Val Lys Arg  
   65                  70                  75                  80  
 Xaa Ala Asp Glu Leu Asp Xaa Arg Pro Gly  
                   85                  90  
  
 <210> 784  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (8)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>

768

<221> SITE  
 <222> (64)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (70)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (79)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (81)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 784  
 Ala Leu Leu Gly Leu Thr Ile Xaa Lys Ala Gly Thr Pro Ala Gly Thr  
   1                  5                  10                  15  
 Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Leu Leu Cys Leu Glu  
                   20                  25                  30  
 Gly Ile Ile Leu Ser Leu Phe Val Ile Ile Thr Ile Thr Ile Leu Ile  
           35                  40                  45  
 Asn His Leu Thr Leu Ala Ser Ile Thr Pro Ile Ile Leu Leu Val Xaa  
       50                  55                  60  
 Ala Ala Cys Glu Ala Xaa Leu Gly Leu Ile Pro Phe Ser Tyr Xaa Leu  
   65                  70                  75                  80  
  
 Xaa Tyr Ile Arg

<210> 785  
 <211> 61  
 <212> PRT  
 <213> Homo sapiens

<400> 785  
 Ile Gly Phe Asp Asn Lys Lys Asp Leu Leu Ile Ser Val Gly Asp Leu  
   1                  5                  10                  15  
 Val Asp Arg Gly Ala Glu Asn Val Glu Cys Leu Glu Leu Ile Thr Phe  
           20                  25                  30



Pro Trp Phe Arg Ala Val Arg Gly Asn His Glu Gln Met Met Ile Asp  
35 40 45

Gly Leu Ser Glu Arg Gly Asn Val Asn His Trp Leu Leu  
50 55 60

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<210> 786
<211> 102
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (8)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (84)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (86)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 786  
Gly Leu Gln Pro Tyr Cys Tyr Xaa Thr Trp Arg Cys Arg Cys Thr Thr  
1 5 10 15

Gly Gln Pro Gly Thr Ala Pro Ala Gly Thr Pro Gly Ala Pro Pro Leu  
20 25 30

770

Xaa Gly Met Ala Ile Val Lys Glu Glu Glu Thr Glu Ala Ala Ile Gly  
                   35                                  40                                  45  
 Ala Pro Pro Thr Ala Thr Glu Gly Pro Glu Thr Lys Pro Val Leu Xaa  
                   50                                  55                                  60  
 Ala Leu Glu Glu Gly Pro Gly Ala Glu Gly Ser Arg Leu Asp Ser Leu  
                   65                                  70                                  75                                  80  
 Val Ala Xaa Xaa Leu Xaa Leu Glu Val Val Ala Leu Arg Asp Ser Ala  
                                   85                                  90                                  95  
 Pro Val Leu Ala Gly Thr  
                                   100

&lt;210&gt; 787

&lt;211&gt; 64

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (44)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (48)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 787

Cys Leu Xaa Arg Ala Arg Xaa Pro Ala Ala Ala Asn Ser Ser Gly Asp  
           1                                  5                                  10                                  15  
 Gly Gly Ala Ala Gly Asp Gly Thr Val Val Asp Cys Pro Val Cys Lys  
                   20                                  25                                  30  
 Gln Gln Cys Phe Ser Lys Asp Ile Val Glu Asn Xaa Phe Met Arg Xaa  
                   35                                  40                                  45

771

Ser Gly Ser Lys Ala Ala Thr Asp Ala Gln Asp Ala Asn Gln Cys Cys  
 50 55 60

&lt;210&gt; 788

&lt;211&gt; 61

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (52)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 788

Thr Leu Ala Phe Phe Leu Ile Pro Cys Ile Gly Ser Pro Ala Cys Pro  
 1 5 10 15

Thr Met Ser Asp Ala Ala Val Asp Thr Ser Ser Glu Ile Thr Thr Lys  
 20 25 30

Asp Leu Lys Glu Lys Lys Glu Val Leu Glu Arg Gly Arg Lys Trp Lys  
 35 40 45

Arg Arg Pro Xaa Leu Thr Gly Asn Ala Asn Leu Gly Lys  
 50 55 60

&lt;210&gt; 789

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 789

Ala Gln Asp Asn Phe Lys His Leu Asn Gly Ile Xaa Leu Phe His Cys  
 1 5 10 15

Ile Asp Pro Asn Gly Ser Lys His Lys Arg Thr Asp Arg Ser Ile Leu  
 20 25 30

772

Cys Cys Leu Arg Lys Gly Glu Ser Gly Gln Ser Trp Gln Gly Leu Thr  
                   35                                  40                                  45

Lys Glu Arg Ala Lys Leu Asn Trp Leu Ser Val Asp Phe Asn Asn Trp  
           50                                  55                                  60

Glu Arg Leu Gly Arg  
       65

<210> 790

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 790

Gln Ser Thr Val Lys Leu Glu His Ala Lys Ser Val Ala Ser Arg Ala  
       1                                  5                                  10                                  15

Thr Val Leu Gln Lys Xaa Ser Xaa Thr Pro Val Gly Met Phe Leu Lys  
                   20                                  25                                  30

Leu Asn Xaa Met Asn Val Lys Phe Xaa Ser Gly Tyr Tyr Glu Leu Pro  
           35                                  40                                  45

Cys Arg Ser  
       50

773

<210> 791  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (78)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 791  
 Asp Pro Gln Ala His Val Ala Met Leu Ser Ser Thr Ala Met Tyr Ser  
           1                  5                  10                  15  
 Ala Pro Gly Arg Asp Leu Gly Met Glu Pro His Arg Ala Ala Gly Pro  
                   20                  25                  30  
 Leu Gln Leu Arg Phe Ser Pro Tyr Val Phe Asn Gly Gly Thr Ile Leu  
           35                  40                  45  
 Ala Ile Ala Gly Glu Asp Phe Ala Ile Val Ala Ser Asp Thr Arg Leu  
           50                  55                  60  
 Ser Glu Gly Phe Ser Ile His Thr Arg Asp Ser Pro Lys Xaa Tyr Lys  
           65                  70                  75                  80  
 Leu Thr Asp Lys Thr Val Ile Gly Cys Ser Gly Phe His Gly Asp Cys  
                   85                  90                  95  
 Leu Thr Leu Thr Lys Ile Ile Glu Ala Arg Leu Lys Met Tyr Lys His  
           100                  105                  110  
 Ser Asn Asn Lys Ala Met Thr Thr Gly Ala Ile Ala Ala Met Leu Ser  
           115                  120                  125  
 Thr Ile Leu Tyr Ser Arg Arg Phe Phe Pro Tyr Tyr Val Tyr Asn Ile  
           130                  135                  140  
 Ile Gly Gly Leu Asp Glu Glu Gly Lys Gly  
           145                  150

<210> 792  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (72)

774

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (73)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 792

Gly	Thr	Ala	Ser	Thr	Ala	Met	Tyr	Ser	Ala	Pro	Gly	Arg	Asp	Leu	Gly
1				5					10					15	

Met	Glu	Pro	His	Arg	Ala	Ala	Gly	Pro	Leu	Gln	Leu	Arg	Phe	Ser	Pro
			20					25					30		

Tyr	Val	Phe	Asn	Gly	Gly	Thr	Ile	Leu	Ala	Ile	Ala	Gly	Glu	Asp	Phe
		35					40					45			

Ala	Ile	Val	Ala	Ser	Asp	Thr	Arg	Leu	Ser	Glu	Gly	Phe	Ser	Ile	His
	50					55					60				

Thr	Arg	Asp	Ser	Pro	Lys	Cys	Xaa	Xaa	Xaa	Asn	Arg	Gln	Asn	Ser	His
65					70					75				80	

Trp	Met	Gln	Arg	Phe	Ser	Trp	Arg	Leu	Ser	Tyr	Ala	Asp	Lys	Asp	Tyr
				85					90					95	

<210> 793

<211> 72

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (6)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 793

Arg	Pro	Pro	Val	Arg	Xaa	Phe	Leu	Arg	Asp	Phe	Phe	Met	Ser	Met	Tyr
1				5					10					15	

Thr	Thr	Ala	Gln	Leu	Leu	Ala	Ala	Asn	Glu	Gln	Lys	Phe	Lys	Phe	Asp
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

775

20 25 30  
 Pro Leu Phe Leu Arg Leu Phe Phe Arg Glu Ser Tyr Pro Phe Thr Thr  
 35 40 45  
 Glu Glu Ser Leu Ser Leu Thr Asn Ser Gly Thr Gly Lys His Gly Ala  
 50 55 60  
 Val Arg Phe Ala Asp Cys Phe Arg  
 65 70

<210> 794  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 794  
 Gly Ser Gly Asp His Glu Gly Gly Lys Gly Asp Gly Met Glu Glu Val  
 1 5 10 15  
 Pro His Asp Cys Pro Gly Ala Asp Ser Ala Gln Ala Gly Arg Gly Ala  
 20 25 30  
 Ser Cys Gln Gly Cys Pro Asn Gln Arg Leu Cys Ala Ser Gly Ala Gly  
 35 40 45  
 Ala Thr Pro Asp Thr Ala Ile Glu Glu Ile Lys Glu Lys Met Lys Thr  
 50 55 60  
 Val Lys His Lys Ile Leu Val Leu Ser Gly Lys Gly Gly Val Gly Lys  
 65 70 75 80  
 Ser Thr Phe Ser Ala His Leu Ala His Gly Leu Ala Glu Asp Glu Asn  
 85 90 95  
 Thr Gln Ile Ala Leu Leu Asp Ile Asp Ile Cys Gly Pro Ser Ile Pro  
 100 105 110  
 Lys Ile Met Gly Leu Glu Gly Glu Gln Val His Gln  
 115 120

<210> 795  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<220>

<221> SITE  
<222> (3)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (33)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE



<222> (64)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (71)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (76)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (78)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (81)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (83)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (89)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (93)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (107)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (112)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (117)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (127)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (136)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 795

Ala	Arg	Xaa	Trp	Leu	Xaa	Gly	Val	Thr	Phe	Xaa	Val	Thr	Thr	Val	Xaa
1				5					10					15	

Thr	Lys	Xaa	Arg	Thr	Glu	Xaa	Val	Gln	Lys	Leu	Cys	Pro	Gly	Gly	Gln
			20					25						30	

Xaa	Pro	Phe	Leu	Leu	Tyr	Xaa	Thr	Glu	Val	His	Thr	Asp	Thr	Asn	Lys
		35					40					45			

Xaa	Ala	Glu	Phe	Leu	Xaa	Ala	Val	Leu	Cys	Pro	Pro	Arg	Tyr	Pro	Xaa
	50					55					60				

Leu	Ala	Ala	Leu	Asn	Pro	Xaa	Ser	Asn	Thr	Ala	Xaa	Leu	Xaa	Ile	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

779

65		70		75		80									
Xaa	Lys	Xaa	Ser	Ala	Tyr	Xaa	Xaa	Xaa	Ser	Asn	Pro	Xaa	Leu	Asn	Asp
				85					90					95	
Asn	Leu	Glu	Xaa	Gly	Leu	Leu	Lys	Ala	Leu	Xaa	Val	Leu	Xaa	Asn	Xaa
			100					105						110	
Leu	Thr	Ser	Pro	Xaa	Ser	Glu	Glu	Val	Asp	Xaa	Thr	Ser	Ala	Xaa	Val
			115					120						125	
Lys	Val	Ser	Leu	Arg	Arg	Ser	Xaa	Trp	Ile	Ala	Arg	Ala	His	Pro	Gly
	130					135					140				

&lt;210&gt; 796

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 796

Ile	Met	Lys	Asn	Gly	Phe	Tyr	Ala	Thr	Tyr	Arg	Ser	Lys	Asn	Lys	Gly
1				5					10					15	
Lys	Asp	Lys	Arg	Ser	Ile	Asn	Leu	Ser	Val	Phe	Leu	Asn	Ser	Xaa	Leu
			20					25					30		
Ala	Asp	Asn	His	His	Leu	Gln	Val	Gly	Ser	Asn	Tyr	Leu	Tyr	Ile	His
		35				40						45			
Lys	Ile	Asp	Gly	Lys	Thr	Phe	Leu	Phe	Thr	Lys	Thr	Asn	Asp	Lys	Ser
	50					55					60				
Leu	Val	Gln	Lys	Ile	Asn	Arg	Ser	Lys	Ala	Ser	Val	Glu	Asp	Ile	Lys
65					70					75				80	
Asn	Ser	Leu	Val	Asp	Asp	Gly	Ile	Ile	Gly	Ile	Pro	Ile	Phe	Phe	Val
				85					90					95	

Cys

780

<210> 797  
 <211> 181  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 797  
 Arg Xaa Xaa Pro Ser Leu Lys Gly Thr Lys Ala Gly Ala Pro Pro Arg  
     1                    5                    10                    15  
 Cys Gly Arg Ser Arg Thr Ser Gly Ser Pro Gly Leu Gln Glu Phe Gly  
                     20                    25                    30  
 Thr Arg Pro Ser Arg Leu Arg Lys Thr Arg Lys Leu Arg Gly His Val  
                     35                    40                    45  
 Ser His Gly His Gly Arg Ile Gly Lys His Arg Lys His Pro Gly Gly  
                     50                    55                    60  
 Arg Gly Asn Ala Gly Gly Leu His His His Arg Ile Asn Phe Asp Lys  
     65                    70                    75                    80  
 Tyr His Pro Gly Tyr Phe Gly Lys Val Gly Met Lys His Tyr His Leu  
                     85                    90                    95  
 Lys Arg Asn Gln Ser Phe Cys Pro Thr Val Asn Leu Asp Lys Leu Trp  
                     100                    105                    110  
 Thr Leu Val Ser Glu Gln Thr Arg Val Asn Ala Ala Lys Asn Lys Thr  
                     115                    120                    125  
 Gly Ala Ala Pro Ile Ile Asp Val Val Arg Ser Gly Tyr Tyr Lys Val  
     130                    135                    140  
 Leu Gly Lys Gly Lys Leu Pro Lys Gln Pro Val Ile Val Lys Ala Lys  
     145                    150                    155                    160  
 Phe Phe Ser Arg Arg Ala Glu Glu Lys Ile Lys Ser Val Gly Gly Ala  
                     165                    170                    175

781

Cys Val Leu Val Ala  
180

<210> 798

<211> 136

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (29)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 798

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Arg Lys Glu Gly Trp  
1 5 10 15

Arg Glu Glu Lys Gly Pro Phe Cys His Gln Arg Arg Xaa Thr Arg Glu  
20 25 30

Tyr Thr Ile Asn Ile His Lys Arg Ile His Gly Val Gly Phe Lys Lys  
35 40 45

Arg Ala Pro Arg Ala Leu Lys Glu Ile Arg Lys Phe Ala Met Lys Glu  
50 55 60

Met Gly Thr Pro Asp Val Arg Ile Asp Thr Arg Leu Asn Lys Ala Val  
65 70 75 80

Trp Ala Lys Gly Ile Arg Asn Val Pro Tyr Arg Ile Arg Val Arg Leu  
85 90 95

Ser Arg Lys Arg Asn Glu Asp Glu Asp Ser Pro Asn Lys Leu Tyr Thr  
100 105 110

Leu Val Thr Tyr Val Pro Val Thr Thr Phe Lys Ile Ser Val Leu Asn  
115 120 125

Ser Val Thr Val Ala Lys Ser Pro  
130 135

<210> 799

<211> 142

<212> PRT

<213> Homo sapiens

<400> 799

782

Trp Ile Pro Arg Ala Ala Gly Ile Arg His Glu Ala Ala Leu Ala Ala  
1 5 10 15  
Cys Ala Ala Met Ala Lys Ile Lys Ala Arg Asp Leu Arg Gly Lys Lys  
20 25 30  
Lys Glu Glu Leu Leu Lys Gln Leu Asp Asp Leu Lys Val Glu Leu Ser  
35 40 45  
Gln Leu Arg Val Ala Lys Val Thr Gly Gly Ala Ala Ser Lys Leu Ser  
50 55 60  
Lys Ile Arg Val Val Arg Lys Ser Ile Ala Arg Val Leu Thr Val Ile  
65 70 75 80  
Asn Gln Thr Gln Lys Glu Asn Leu Arg Lys Phe Tyr Lys Gly Lys Lys  
85 90 95  
Tyr Lys Pro Leu Asp Leu Arg Pro Lys Lys Thr Arg Ala Met Arg Arg  
100 105 110  
Arg Leu Asn Lys His Glu Glu Asn Leu Lys Thr Lys Lys Gln Gln Arg  
115 120 125  
Lys Glu Arg Leu Tyr Pro Leu Arg Lys Tyr Ala Val Lys Ala  
130 135 140

&lt;210&gt; 800

&lt;211&gt; 74

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (2)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (14)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

<222> (15)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (20)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (58)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (59)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (60)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (62)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (64)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids  
  
 <400> 800  
 Xaa Xaa Tyr His Lys Tyr Lys Ala Lys Arg Asn Cys Trp Xaa Xaa Val  
   1                  5                  10                  15  
  
 Arg Gly Val Xaa Met Asn Pro Val Glu His Pro Phe Gly Gly Gly Asn  
                   20                  25                  30  
  
 His Gln His Ile Gly Lys Pro Ser Thr Ile Arg Arg Asp Ala Pro Ala  
           35                  40                  45  
  
 Gly Arg Lys Val Gly Leu Ile Ala Ala Xaa Xaa Xaa Gly Xaa Leu Xaa  
   50                  55                  60

784

Gly Thr Lys Xaa Val Gln Glu Lys Glu Asn  
 65 70

<210> 801  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (12)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 801  
 Met Thr Pro Val Gln Arg Gly Gly Pro Gly Ala Xaa Val Ala Leu Gly  
 1 5 10 15  
 Trp Gly Thr Ala Val Ala Ser Ala Arg Phe Arg Gln Trp His Pro Gly  
 20 25 30  
 Pro Gly Ser Arg Pro Trp Thr Gly Pro Gly Pro Arg Pro Arg Thr Arg  
 35 40 45  
 Xaa Gly Lys Ala Glu Asp Lys Glu Trp Met Pro Val Thr Lys Leu Gly  
 50 55 60  
 Arg Leu Val Lys Asp Met Lys Ile Lys Ser Leu Glu Glu Ile Tyr Leu  
 65 70 75 80  
 Phe Ser Leu Pro Ile Lys Glu Ser Glu Ile Ile Asp Ser Ser Trp Gly  
 85 90 95  
 Leu Ser Gln Gly  
 100

<210> 802  
 <211> 19  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE



785

&lt;222&gt; (1)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 802

Xaa	Glu	Thr	Gln	Ala	Ile	Val	Cys	Gln	Gln	Leu	Asp	Leu	Thr	His	Leu
1					5				10				15		

Lys Gly Ala

&lt;210&gt; 803

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (51)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 803

Gly	Thr	Arg	Asp	Val	Arg	Arg	Val	Pro	Gly	Val	Ala	Pro	Thr	Leu	Val
1				5					10					15	

Arg	Ser	Ala	Ser	Glu	Thr	Ser	Glu	Lys	Arg	Pro	Phe	Met	Cys	Ala	Tyr
			20					25					30		

Pro	Gly	Cys	Asn	Lys	Arg	Tyr	Phe	Lys	Leu	Ser	His	Leu	Gln	Met	His
		35					40					45			

Ser	Arg	Xaa	Ala	His	Trp
		50			

&lt;210&gt; 804

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (98)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (104)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

786

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (120)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (135)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (136)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 804

Phe	Lys	Ser	Tyr	Leu	Gly	Asp	Thr	Ile	Glu	Gly	Ser	Leu	Gln	Val	Thr
1				5					10					15	

Gly	Pro	Glu	Ile	Pro	Gly	Ser	Thr	His	Ala	Ser	Ala	Glu	Ser	Leu	Ser
			20					25					30		

Arg	Arg	Lys	Leu	Asp	Thr	Gly	Thr	Gly	Ser	Ala	Met	Arg	Leu	Leu	Pro
		35				40						45			

Arg	Leu	Leu	Leu	Leu	Leu	Leu	Leu	Val	Phe	Pro	Ala	Thr	Val	Leu	Phe
	50				55						60				

Arg	Gly	Gly	Pro	Arg	Gly	Leu	Leu	Ala	Val	Ala	Gln	Asp	Leu	Thr	Glu
	65				70					75					80

Asp	Glu	Glu	Thr	Val	Glu	Asp	Ser	Ile	Ile	Glu	Asp	Glu	Asp	Asp	Glu
				85					90					95	

Ala	Xaa	Val	Glu	Glu	Asp	Glu	Xaa	Thr	Asp	Phe	Val	Glu	Asp	Lys	Glu
			100					105						110	

Glu	Glu	Asp	Val	Ser	Gly	Glu	Xaa	Glu	Thr	Leu	Pro	Ser	Ala	Asp	Thr
		115					120					125			

Thr	Ile	Leu	Phe	Leu	Lys	Xaa	Xaa	Ile	Phe	Arg	Gln
	130					135					140

&lt;210&gt; 805

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<220>  
 <221> SITE  
 <222> (105)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (119)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (120)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (124)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (125)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 805  
 Phe Glu Ala Asn Arg Gln Arg Ala Thr Met Ala Val Ala Arg Ala Ala  
   1                  5                  10                  15  
 Leu Gly Pro Leu Val Thr Gly Leu Tyr Asp Val Gln Ala Phe Lys Phe  
                   20                  25                  30  
 Gly Asp Phe Val Leu Lys Ser Gly Leu Ser Ser Pro Ile Tyr Ile Asp  
           35                  40                  45  
 Leu Arg Gly Ile Val Ser Arg Pro Arg Leu Leu Ser Gln Val Ala Asp  
       50                  55                  60  
 Ile Leu Phe Gln Thr Ala Gln Asn Ala Gly Ile Ser Phe Asp Thr Val  
   65                  70                  75                  80  
 Cys Gly Val Pro Tyr Thr Ala Leu Pro Leu Ala Thr Val Ile Cys Ser  
                   85                  90                  95  
 Thr Asn Gln Ile Pro Met Leu Ile Xaa Arg Lys Glu Thr Lys Asp Tyr  
           100                  105                  110  
 Gly Thr Lys Arg Leu Val Xaa Xaa Ile Leu Ile Xaa Xaa Lys Leu Phe  
       115                  120                  125  
 Asn His

788

130

&lt;210&gt; 806

&lt;211&gt; 35

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 806

Val Ala Asp Ile Ala Trp Trp Phe Arg Arg Arg Ile Phe Ile Ala Val  
1 5 10 15

Leu Arg Cys Asn Ser Ser Ile Ser Asp Ala Glu Ser Met Met Ser Ala  
20 25 30

Ile Phe His  
35

&lt;210&gt; 807

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (7)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (42)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

789

<220>  
 <221> SITE  
 <222> (54)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (61)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (67)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (68)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 807  
 Asp Trp Arg Gln Thr Ser Xaa Ser Gly Ala His Gly Arg Leu Lys Pro  
 1 5 10 15  
 Trp Xaa Asn Pro Xaa Ala Arg Arg Asp Ala Arg Glu Asp Arg Ala Thr  
 20 25 30  
 Trp Lys Ser Asn Tyr Xaa Leu Lys Ile Xaa Gln Arg Ile Gly Met Ile  
 35 40 45  
 Ile Leu Lys Trp Val Xaa Leu Val Gly Ser Glu Tyr Xaa Met Val Gly  
 50 55 60  
 Xaa Pro Xaa Xaa Ser Met Ala Ser  
 65 70

<210> 808  
 <211> 53  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (30)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (52)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 808

Pro	Ser	Leu	Lys	Gly	Thr	Lys	Ala	Gly	Asn	Asp	Leu	Val	Ser	Leu	Arg
1				5				10					15		

Ala	Ala	Arg	Thr	Leu	Arg	Pro	Pro	Gly	Thr	Lys	Pro	Gly	Xaa	Gly	Ala
			20					25					30		

Thr	Phe	Gly	Pro	Gly	Leu	Ser	Glu	Arg	Ala	Ser	Ala	Gln	Arg	Gly	Ser
		35				40						45			

Gly	Gln	Leu	Xaa	His
		50		

<210> 809

<211> 70

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (2)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (23)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (35)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (39)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (46)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (49)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (53)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 809  
 Ala Xaa Glu Tyr Thr Leu Arg Thr Ser Gly Leu Thr Val Arg Pro Xaa  
 1 5 10 15  
 Thr Ser Gly Pro Gly Cys Xaa Cys Gln Gly Gly Leu Ser Asp Leu Arg  
 20 25 30  
 Met Gly Xaa Met Glu Trp Xaa Arg Arg Asp Ala Gly Val Xaa Ala Gly  
 35 40 45  
 Xaa Asp Arg Ser Xaa Thr His Glu Cys Gln Val Gln Val Val Arg Val  
 50 55 60  
 Gly Asp Met Ser Leu Glu  
 65 70

<210> 810  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (1)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE

792

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (18)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (39)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 810

Xaa	Ile	Xaa	Xaa	Cys	Gly	Phe	Glu	Pro	Pro	His	Phe	Leu	Thr	Leu	Asn
1				5				10						15	

Leu	Xaa	Met	His	Arg	Xaa	Ser	Cys	Pro	Leu	Asp	Cys	Lys	Val	Tyr	Val
			20					25					30		

Gly	Ile	Leu	Gly	Thr	Met	Xaa
						35

&lt;210&gt; 811

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (22)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (24)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (25)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 811



793

Gly Arg Glu Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
1 5 10 15

Lys Lys Lys Lys Lys Xaa Pro Xaa Xaa Gly Pro  
20 25

&lt;210&gt; 812

&lt;211&gt; 72

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (21)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 812

Arg Arg Arg Xaa Arg Pro Ala Pro Pro Pro Gly Ala Cys Leu His Leu  
1 5 10 15

Arg Leu Pro Lys Xaa Leu Gly Gln Arg Leu Asp Ala Arg His Gln Gly  
20 25 30

Pro Val Glu Val Leu Gln Glu Glu Arg Arg Pro Arg Pro Arg Leu Pro  
35 40 45

Arg Pro Ala Leu Ala Thr Leu Ser Ala Arg Phe Thr Asn Lys Leu Ser  
50 55 60

Asp Pro Lys Lys Lys Lys Lys Lys  
65 70

&lt;210&gt; 813

&lt;211&gt; 27

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

794

<220>  
<221> SITE  
<222> (5)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 813  
Asn Ser Ala Xaa Xaa Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
1 5 10 15  
Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
20 25

<210> 814  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 814  
Asn Ser Ala Gln Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
1 5 10 15  
Lys Lys Lys Lys Lys Lys Xaa  
20

<210> 815  
<211> 46  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (16)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (24)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (31)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (37)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (38)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (46)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 815

Phe	Asp	Gln	Arg	Thr	Arg	Ile	Thr	Arg	Pro	Gln	Arg	Arg	Val	Phe	Xaa
1				5					10					15	

Ala	Ser	Xaa	Ser	Pro	Pro	Lys	Xaa	Ile	Thr	Asn	Cys	Ile	Tyr	Xaa	Lys
			20					25					30		

Ile	Asn	Arg	Tyr	Xaa	Xaa	Leu	Asn	Ile	Ala	Ile	Gln	Ile	Xaa
		35					40					45	

<210> 816

<211> 52

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (41)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (45)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (50)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 816

Asn	Ser	Ala	Xaa	Leu	Lys	Gln	Thr	Gly	Leu	Lys	Gly	Val	Thr	Phe	Asn
1				5				10						15	

Lys	Arg	Met	Lys	Met	Xaa	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
			20					25					30		

Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Xaa	Pro	Gly	Gly	Xaa	Pro	Pro	Pro
			35					40					45		

Pro	Xaa	Pro	Pro
			50

<210> 817

<211> 113

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (1)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (28)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (68)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (69)

797

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (100)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 817

Xaa	Ser	Gly	Arg	Gly	Gly	Ser	His	Ser	Arg	Asn	Leu	Val	Leu	Phe	Phe
1				5					10					15	

Pro	Gln	Leu	Gly	Lys	Arg	His	Met	Ser	Leu	Ala	Xaa	Pro	Ile	Ala	Asn
			20					25					30		

Pro	Val	Val	Gly	Phe	Leu	Ala	Tyr	Ser	Arg	Pro	Ser	Val	Leu	Pro	Gly
		35					40					45			

Trp	His	Arg	Pro	His	Arg	Thr	Ser	Arg	Val	Gly	Leu	Ser	Gly	Ser	Ser
	50				55						60				

Thr	Ala	Gly	Xaa	Xaa	Asn	Ser	Arg	Phe	Gly	Gly	Cys	Ser	Phe	Gln	Ala
65					70					75					80

Gly	Asp	Thr	Leu	Gly	Pro	Val	Val	Arg	Ser	Pro	Val	Leu	Arg	His	Leu
				85					90					95	

Val	Trp	Asn	Xaa	Arg	Leu	Ala	Val	Ser	Ile	Gly	Val	Gly	Xaa	Cys	Ala
		100						105					110		

Ala

<210> 818

<211> 132

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (5)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (9)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (11)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (15)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (27)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (38)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (39)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (71)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (77)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (79)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (87)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (93)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (94)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (97)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (105)

<223> Xaa equals any of the naturally occurring L-amino acids

800

<220>  
 <221> SITE  
 <222> (108)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (116)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (121)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (127)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 818  
 Phe Phe Phe Phe Xaa Lys Gly Thr Xaa Thr Xaa Leu Pro Phe Xaa Pro  
 1 5 10 15  
 Asn Gln Asn Gln Asn Pro Xaa Gln Ser Ile Xaa Lys Ser Lys Pro Gly  
 20 25 30  
 Gln Asn Gln Asn Glu Xaa Xaa Lys Gln Ser Lys Ser Ser Gln Lys Gln  
 35 40 45  
 Lys Pro Lys Cys Arg Tyr Arg Xaa Xaa Val Gly Asp Gln Ala Thr Leu  
 50 55 60  
 Pro Leu Lys Trp Ser Gly Xaa Xaa Pro Lys Thr Ser Xaa Thr Xaa Phe  
 65 70 75 80  
 Xaa Xaa Ser Gly Xaa Gln Xaa Pro Val Pro Ser Gln Xaa Xaa Ala Ala  
 85 90 95  
 Xaa Leu Ile Leu Cys Gly Gly Leu Xaa Asn Ala Xaa Leu Ala Arg Cys  
 100 105 110  
 Ser Thr Gly Xaa Ile Ala Tyr Pro Xaa Val Leu Ser Gly Ser Xaa Ser  
 115 120 125  
 Leu Lys Leu Ala  
 130



801

<210> 819  
<211> 62  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (4)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (54)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 819  
Asn Ser Ala Xaa Gln Thr Thr Pro Ser Leu Ser Tyr Val Phe Leu Leu  
1 5 10 15  
Gln Thr Thr Arg Gln Leu Leu Lys Pro Ala Ile His Val Tyr Phe Asn  
20 25 30  
Lys Leu Met Ala Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys  
35 40 45  
Lys Lys Lys Lys Lys Xaa Xaa Gly Gly Gly Pro Pro Pro Pro  
50 55 60

<210> 820  
<211> 40  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (17)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>

802

<221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (38)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 820  
 Asp His Thr Ser Asp Thr Xaa Ala Trp Val Thr Glu Arg Asp Ser Val  
     1                    5                    10                    15  
 Xaa Gly Lys Glu Lys Lys Lys Lys Lys Xaa Xaa Gly Gly Ala Pro Val  
                     20                    25                    30  
 Pro Asn Trp Pro Tyr Xaa Gly Ser  
             35                    40

<210> 821  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 821  
 Ala Xaa Pro Thr Gln Gln Ser Phe Pro Gln Leu Pro Arg Arg Lys Gly  
     1                    5                    10                    15  
 Pro Ser Trp Val Trp Asp His Lys Gly Gly Asp Cys Thr Pro Leu Pro  
             20                    25                    30  
 Leu Gly Pro Gly Cys Gly Gln Arg Pro Pro Cys Val Ser Arg Val Thr  
             35                    40                    45  
 Val Pro Leu Ser Cys Asp Ala Ile Ser Val Cys Ala Trp Ser Pro Gln  
             50                    55                    60

803

<210> 822  
<211> 61  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 822  
His Leu Cys Phe Lys Trp Gly Ser Pro Cys Arg Gly Phe Ile Gly His  
1 5 10 15  
Trp Leu Ser Lys Cys Gln Xaa Trp Ala Gly Gly Gly Thr Glu Pro Pro  
20 25 30  
Gln His Cys Ala Leu Val Glu Lys Ala Leu Thr Cys His Ala Pro Leu  
35 40 45  
Lys Pro Pro Leu Leu Thr Cys Leu Leu His Pro Ser His  
50 55 60

<210> 823  
<211> 73  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (49)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (57)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (72)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 823  
Thr Ala Gly Arg Trp Pro Trp Lys Ser Glu Ser Ala Lys Glu Cys Val  
1 5 10 15

804

Thr Thr His Leu Pro Asn Gln Leu Ala Leu Lys Met Asp Gly Ala Gly  
20 25 30

Ala Ser Gly Pro Tyr Pro Ser Val Ala Gly Ser Arg Glu Trp Thr Gly  
35 40 45

Xaa Ala Gly Ala Ala Arg Ala Arg Xaa Val Met Val Cys Val Gly Gly  
50 55 60

Arg Arg Arg Arg Arg Gly Cys Xaa Val  
65 70

&lt;210&gt; 824

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (12)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (27)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (31)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 824

Pro Arg Xaa Arg Arg Gln Gln Gln Pro His His Xaa Val Ala Asp Gly  
1 5 10 15

Pro His Ala Gly Gly Pro Leu Pro Ala Leu Xaa Arg Arg Leu Xaa Leu  
20 25 30

Pro Leu

805

<210> 825  
<211> 21  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (6)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (7)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (19)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 825  
Pro Tyr Ser Glu Ser Xaa Xaa Asn Ser Leu Ala Val Val Leu Gln Arg  
1 5 10 15  
Arg Asp Xaa Glu Asn  
20

<210> 826  
<211> 56  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (56)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 826  
Met Ser Glu Ala Cys Ile Val Ile Ile Ser Tyr Phe Phe Pro Leu Asp  
1 5 10 15  
Pro Ser His Gln Met Phe Val Asp Phe Ile Arg Ile Phe Lys Leu Pro  
20 25 30

806

Ala Ser Gly Phe Val Glu Leu Gly Ile Ser Val Ser Leu Ile Phe Xaa  
35 40 45

Leu Leu Ser Cys Thr Tyr Phe Xaa  
50 55

&lt;210&gt; 827

&lt;211&gt; 54

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (4)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (41)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (47)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 827

Asn Ser Lys Xaa Ile Thr Ile Lys Lys Ala Gly Thr Pro Ala Gly Thr  
1 5 10 15

Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Thr Ala Ala Arg Arg  
20 25 30

Arg Gln Lys Gly Thr Ala Ala Arg Xaa Arg Gln Lys Gly Ala Xaa Glu  
35 40 45

Arg Arg Arg Gln Lys Gly  
50

&lt;210&gt; 828

&lt;211&gt; 78

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

807

&lt;222&gt; (43)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (56)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 828

Leu	Val	Phe	Thr	Glu	Thr	Leu	Arg	Glu	His	Lys	Phe	Met	Gly	Phe	Leu
1					5					10				15	

Met	Met	Ile	Leu	Leu	Gly	Ile	Met	Ser	Tyr	Ser	Leu	Ser	Ser	Leu	Met
			20					25					30		

Asn	Val	Lys	Leu	His	Cys	Ser	Gln	Arg	Phe	Xaa	Leu	Leu	Ser	Thr	Ala
		35					40					45			

Ile	Asn	His	Gly	His	Ser	Pro	Xaa	Asn	Ile	Ile	Phe	Phe	Leu	Leu	Lys
	50					55					60				

Glu	Lys	Asn	Gly	Lys	Lys	Leu	Gln	Gly	Asn	Gly	Asn	Tyr	Tyr
65					70				75				

&lt;210&gt; 829

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 829

Ser	Ala	Glu	Glu	Lys	Lys	Leu	Thr	Arg	Ile	Pro	Ser	Val	Thr	Ala	Ser
1				5					10					15	

Glu	Gln	Gly	Arg	Ala	Gln	Arg	Arg	Ile	Pro	Ala	Pro	Arg	Arg	Gly	Ala
			20					25						30	

Gly	His	Val	Ala	Tyr	Gly	Arg	Pro	Ala	Pro	Arg	Arg	Arg	Ser	Trp	Gly
		35					40					45			

Ala	Gln	Val	Leu	Leu	Ile	Glu	Ala	Gln	Pro	Val	Asp	Gly	Val	Arg	Pro
		50				55					60				

Val	Ala	Ala	Pro	Gly	Ala	Pro	Gly	Pro	Gly	Leu	Pro	Gly	Val	Gly	Leu
65					70					75					80

Leu	Gly	Asn	Ala	Ala	Gln	Ser	Gly	Trp
					85			

808

<210> 830  
<211> 43  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (43)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 830  
Pro Leu Ile Phe Ile Asn Ser Arg Ile His Thr Asp Ser Pro Gly Ile  
1 5 10 15  
Val Pro Ser His Ser Glu Asp Ala Leu Arg Thr Leu Gln Ile Leu Leu  
20 25 30  
Pro Tyr Ile Thr Leu Asn Ser Gly Leu Arg Xaa  
35 40

<210> 831  
<211> 110  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (34)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (66)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (87)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (98)



809

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (99)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (103)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 831

Lys	Asp	Ser	Leu	Asp	Ser	Gly	Lys	Leu	Leu	Gly	Ser	Gln	Leu	Gln	Phe
1				5					10					15	

Ile	Thr	Val	Lys	Gly	Gln	Arg	Leu	Arg	Ser	Ala	Lys	Gly	Gly	Gly	Ala
			20				25						30		

Gln	Xaa	Arg	Ser	Thr	Thr	Asp	Glu	Ala	Thr	Ala	Ser	Ile	Cys	Pro	Leu
		35					40					45			

Pro	Val	Glu	Pro	Tyr	Arg	Gln	His	Leu	Ile	Leu	Thr	Ala	Thr	Cys	Asp
	50					55					60				

Asn	Xaa	Gln	Glu	Val	Leu	Pro	Ile	Leu	Pro	Thr	Arg	Ala	Ala	Ser	Leu
65					70					75					80

Gly	Asp	Leu	Cys	Val	Pro	Xaa	Phe	Xaa	Val	Cys	Leu	Gly	Asp	Arg	Val
			85						90					95	

Trp	Xaa	Xaa	Leu	Gly	Arg	Xaa	Arg	Val	His	Gly	Gly	Asp	Ser
			100					105					110

&lt;210&gt; 832

&lt;211&gt; 50

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (20)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 832

Gln	Arg	Ser	Ile	Leu	Val	Thr	Trp	Phe	His	Cys	His	His	Leu	Val	Asp
1				5				10					15		

Val	Gln	Phe	Xaa	Thr	Ile	Leu	Ser	Ala	Pro	Ser	Gly	Ser	Leu	Ala	His
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

810

	20		25		30										
Ser	Leu	Leu	Cys	Asn	Cys	Trp	Arg	Ile	Thr	Ala	Glu	Phe	Leu	Ala	Val
		35					40					45			
Leu	Ser														
	50														

&lt;210&gt; 833

&lt;211&gt; 47

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (10)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (13)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (17)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (32)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (34)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (38)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (40)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 833

811

His Leu Lys Leu Leu Gly Leu Glu Arg Xaa Gln Arg Xaa Ser Gly Arg  
 1 5 10 15

Xaa Thr Thr Leu Gly Gly Arg Ser Thr Gly Leu Val Ile Glu Leu Xaa  
 20 25 30

Leu Xaa Arg Leu Leu Xaa Cys Xaa Met Asn Cys Asn Ile Cys Leu  
 35 40 45

<210> 834

<211> 90

<212> PRT

<213> Homo sapiens

<220>

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<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

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<221> SITE

<222> (21)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 834

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 1 5 10 15

Ala Ala Arg Arg Xaa Gln Lys Gly Thr Ala Ala Arg Arg Arg Gln Lys  
 20 25 30

Gly Thr Ala Ala Arg Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Arg  
 35 40 45

Gln Lys Val Arg Leu Arg Glu Asp Asp Arg Arg Ile Arg Leu Arg Glu  
 50 55 60

Asp Asp Arg Arg Glu Asn Leu Ser Ser Thr Leu Asn Leu Pro Thr Glu  
 65 70 75 80

Pro Ser Lys Ser Pro Cys Lys Phe Asn Cys  
 85 90

812

<210> 835  
<211> 51  
<212> PRT  
<213> Homo sapiens

<220>  
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<222> (3)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (28)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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<222> (41)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (48)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (51)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 835  
Asp Ile Xaa Leu Val Phe Ile Leu Lys Gln Phe Leu Gly Leu Phe Arg  
1 5 10 15  
Gly Ser Leu Cys Cys Leu Tyr Cys Ile Asp Leu Xaa Tyr Arg Cys Leu  
20 25 30  
Phe Ile Lys Lys Lys Ile Gln Lys Xaa Lys Lys Lys Ile Asn Lys Xaa  
35 40 45  
Lys Lys Xaa  
50

<210> 836  
<211> 47  
<212> PRT  
<213> Homo sapiens

813

<220>  
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 <222> (46)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (47)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 836  
 Ser Ser Leu Gln Lys Asn Leu Val Leu Glu Tyr Phe Leu Lys Gly Ile  
           1                  5                  10                  15  
 Leu Asn Thr Ile Lys Thr Ala Phe Phe Phe Pro Ala Ser Ile Gln Pro  
                   20                  25                  30  
 Thr Trp Phe Cys Phe Asn Lys Ser Leu Glu Lys Leu Ile Xaa Xaa  
           35                  40                  45

<210> 837  
 <211> 733  
 <212> DNA  
 <213> Homo sapiens

<400> 837  
 gggatccgga gcccaaattct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60  
 aattcgaggg tgcaccgtca gtcttcctct tcccccaaaa acccaaggac accctcatga 120  
 tctcccggaac tcctgaggtc acatgcgtgg tgggtggacgt aagccacgaa gaccctgagg 180  
 tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240  
 aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300  
 ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg 360  
 agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420  
 catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctgggc aaaggcttct 480  
 atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540  
 ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctaccctgtg 600  
 acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660  
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 gactctagag gat 733

<210> 838  
 <211> 5  
 <212> PRT  
 <213> Homo sapiens

<220>

814

&lt;221&gt; SITE

&lt;222&gt; (3)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 838

Trp Ser Xaa Trp Ser

1 5

&lt;210&gt; 839

&lt;211&gt; 86

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 839

ggcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60  
 ccgaaatat ctgccatctc aattag 86

&lt;210&gt; 840

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 840

gcgggcaagct ttttgcaaag cctaggc 27

&lt;210&gt; 841

&lt;211&gt; 271

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 841

ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60  
 aaatatctgc catctcaatt agtcagcaac catagtccccg cccctaactc cgcccatccc 120  
 gccctaact ccgccagtt ccgcccattc tccgccccat ggctgactaa ttttttttat 180  
 ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240  
 ttttgagggc ctaggctttt gcaaaaagct t 271

&lt;210&gt; 842

&lt;211&gt; 32

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 842

gcgctcgagg gatgacagcg atagaacccc gg 32

815

<210> 843  
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 <212> DNA  
 <213> Homo sapiens

<400> 843  
 gcgaagcttc gcgactcccc ggatccgcct c 31

<210> 844  
 <211> 12  
 <212> DNA  
 <213> Homo sapiens

<400> 844  
 ggggactttc cc 12

<210> 845  
 <211> 73  
 <212> DNA  
 <213> Homo sapiens

<400> 845  
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 ccattctcaat tag 73

<210> 846  
 <211> 256  
 <212> DNA  
 <213> Homo sapiens

<400> 846  
 ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct 60  
 caattagtca gcaaccatag tcccgccct aactccgcc atcccgcccc taactccgcc 120  
 cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180  
 ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240  
 cttttgcaaa aagctt 256

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/05881

**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : C07H 21/04; C07K 5/04, 16/00; G01N 33/53

US CL : 536/23.1; 530/300, 387.9; 436/501

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 536/23.1; 530/300, 387.9; 436/501

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

East, GenEmbl, EST, GeneSeq, PIR-63, SwissProt, SPTREMBL, Issued patents sequence database: SEQ ID NO:1 and monoamine adj oxidase

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ----- Y	ZHU et al. Promoter organization and activity of human monoamine oxidase (MOA) A and B genes. J. Neurosci. November 1992, Vol. 12, No. 11, pages 4437-4446, especially pages 4438-4439.	1-12, 14-16, 20-23 ----- 13, 17-19
X ----- Y	CHEN et al. The deduced amino acid sequences of human platelet and frontal cortex monoamine oxidase B are identical. J. Neurochem. July 1993, Vol. 61, No. 1, pages 187-190, especially pages 188-190.	1-7, 11-12 ----- 19
X ----- Y	GRIMSBY et al. Human monoamine oxidase A and B genes exhibit identical exon-intron organization. Proc. Natl. Acad. Sci., USA. May 1991, Vol. 88, pages 3637-3641, especially 3638-3640.	1-12, 20-21 and 23 ----- 17-19

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 JUNE 2000

Date of mailing of the international search report

05 JUL 2000

 Name and mailing address of the ISA/US  
 Commissioner of Patents and Trademarks  
 Box PCT  
 Washington, D.C. 20231

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Authorized officer

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 JOYCE BRIDGERS  
 PARALEGAL SPECIALIST  
 CHEMICAL MATRIX



# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/05881

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X -----	BACH et al. cDNA cloning of human liver monoamine oxidase A and B: Molecular basis of differences in enzymatic properties.	1-16, 20-23 -----
Y	Proc. Natl. Acad. Sci., USA. July 1988, Vol. 85, pages 4934-4938, especially pages 4935-4936.	17-19
Y	US 5,783,680 A (BRUNNER et al.) 21 July 1998, columns 5-15.	13, 17-19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/05881

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-23, SEQ ID NO:1

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/05881

## BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be searched, the appropriate additional search fees must be paid.

Group I, claim(s) 1-10 and 21, drawn to isolated nucleic acid sequences, a gene, a recombinant vector and host cells comprising the sequences.

Group II, claim(s) 11-12 and 14, drawn to an isolated polypeptide and a recombinant host cell expressing the polypeptide.

Group III, claim(s) 13, drawn to an antibody.

Group IV, claim(s) 15-16, drawn to a method of making a polypeptide and the polypeptide made.

Group V, claim(s) 17, drawn to a method of preventing, treating, or ameliorating a medical condition by administering a polypeptide or a polynucleotide.

Group VI, claim(s) 18, drawn to a method of diagnosis using a polynucleotide.

Group VII, claim(s) 19, drawn to a method of diagnosis using a polypeptide.

Group VIII, claim(s) 20 and 23, drawn to a method of identifying a binding partner to a polypeptide.

Group IX, claim(s) 22, drawn to a method of identifying biological activity.

In addition, each isolated nucleic acid represented by SEQ ID NO: X is a separate product, not necessarily related to any other nucleic acid represented by SEQ ID NO: X. Each polypeptide is likewise considered a separate product, not necessarily related to any other polypeptide sequence, or to any nucleotide sequence. Applicant is required to elect either ten nucleic acid sequences or one polypeptide sequence for search.

The inventions listed as Groups I-IX do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: every nucleic acid sequence claimed is not unique (SEQ ID NO: 1 is not unique, see the Search report), and therefore does not represent a special technical feature. As the nucleic acid would be the "linking" feature, and the nucleic acid is not a special technical feature, the claims do not relate to a single inventive concept. Because there is no single inventive concept, a method of use is not included with the nucleic acids of Group I.

Although unity of invention is lacking for Groups I-IX, as previously set forth, no invitation to pay for a search for extra groups has been made. However, unity of invention is also lacking with regard to sequences and applicant was invited to pay for a search for additional groups of sequences. Applicant elected only SEQ ID NO:1, therefore no extra search fees are due.